FINAL ANNUAL SUMMARY GROUNDWATER MONITORING REPORT – 2005

Underground Storage Tank Site 2459
Marine Corps Base
Camp Pendleton, California
Project Number 102910

Document Control Number EAR-0007
Revision 0

January 15, 2006

Submitted to:

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Southwest Division
Naval Facilities Engineering Command
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Acronyms and Abbreviations

BTEX	benzene, toluene, ethylbenzene, and total xylenes
CA LUFT	California Leaking Underground Fuel Tank
CAP	Corrective Action Plan
DON	U.S. Department of the Navy
EPA	U.S. Environmental Protection Agency
ft/ft	feet per foot (or foot per foot)
MCB	Marine Corps Base
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NTUs	nephelometric turbidity units
OHM	OHM Remediation Services Corp.
ORC®	oxygenated release compound
RWQCB	California Regional Water Quality Control Board
SWDIV	Southwest Division Naval Facilities Engineering Command
TPH	total petroleum hydrocarbons
UST	underground storage tank
µg/L	micrograms per liter

1.0 Introduction

This *Final Annual Summary Groundwater Monitoring Report – 2005* for the Underground Storage Tank (UST) Site 2459 at Marine Corps Base (MCB) Camp Pendleton, California, was prepared by Shaw Environmental, Inc. for EAR Engineering, Construction & Support Services, Riverside, California for submittal to the U.S. Department of the Navy (DON). The report describes quarterly monitoring events conducted during February/March, April, August, and October/November 2005. Groundwater sampling and associated reporting activities were performed under a Shaw Environmental, Inc. Professional Services Agreement with EAR Engineering, Construction & Support Services.

This report was prepared in accordance with direction from the DON and recommendations by the California Regional Water Quality Control Board (RWQCB), San Diego Region. The quarterly groundwater sampling was performed in accordance with the Sampling and Analysis Plan (Southwest Division Naval Facilities Engineering Command [SWDIV], 2003) and the *Site Assessment and Mitigation Manual* prepared by the County of San Diego (San Diego County, 2004).

1.1 Scope of Work

Quarterly groundwater monitoring and reporting are included in the scope of work developed by the DON for the remediation of hydrocarbon-impacted soil and groundwater at UST Site 2459. Monitoring activities include measurement of water levels and collection and analysis of groundwater samples. Groundwater samples are analyzed for total petroleum hydrocarbons (TPH) as diesel; benzene, toluene, ethylbenzene, and total xylenes (BTEX); nitrate; sulfate; alkalinity; and methane. In addition to laboratory analyses of groundwater samples, dissolved oxygen concentrations, oxidation-reduction potential, and ferrous iron concentrations are measured in the field at the time of sampling.

1.2 Site Background

MCB Camp Pendleton is located in northern San Diego County, California, and covers approximately 125,000 acres of land bordered on the west by the Pacific Ocean (Figure 1). UST Site 2459 is in the southeastern portion of MCB Camp Pendleton, approximately 8 miles northeast of the MCB Camp Pendleton Oceanside gate (Figure 1).

The project site is currently a parking lot adjacent to Building 2459 that houses the Base Telephone Exchange, and is located on Powder Magazine Road, approximately 1,100 feet east of Vandegrift Boulevard (Figure 2). The site is located within the Santa Margarita Groundwater Basin, approximately 0.75 mile southeast of the Santa Margarita River. Four drinking water supply

wells are located within 1 mile of the site: one well is located 0.75 mile to the southwest; one is 0.5 mile to the west; another is 0.75 mile to the northwest; and the last well is located 1 mile to the north.

Two USTs were formerly located northwest of Building 2459. The tanks, which had been used to store diesel fuel, were removed in 1994. Soil contamination was observed at the time of tank removal. A site assessment was conducted, in July and August 1995, to delineate the extent of contamination (Brown and Caldwell, 1996).

In March 1998, Shaw Environmental, Inc. installed three monitoring wells (OW-1, OW-2, and OW-3) and one air-sparging well (BS-1) to perform biosparge pilot testing at the site. Two additional groundwater monitoring wells (MW-4 and MW-5) were installed in the downgradient area of the site in July 1998. Construction details for the wells and the results of the sparge testing are presented in the Draft Corrective Action Plan (CAP) dated November 1998 (OHM Remediation Services Corp. [OHM], 1998).

A second air-sparging test well (BS-2) was installed in July 1998 and another pilot test was performed to assess additional biosparging as a potential remedial alternative. The final CAP was submitted in September 2000 (OHM, 2000) to the RWQCB and an alternative that included bioventing and biosparging was approved to remediate contaminated soil and groundwater at the site. A remediation system was subsequently constructed and system operation began in December 2000.

2.0 Fluid Level Measurements and Groundwater Sampling

This section summarizes fluid level measurements from the first through fourth quarter groundwater sampling events conducted at UST Site 2459 during 2005.

2.1 Fluid Level Measurements

Fluid levels were measured in the UST Site 2459 monitoring wells on February 28, April 26, August 22, and October 31, 2005. Fluid level measurements are summarized in Table 1 and are documented on the field data sheets presented in Appendix A. No free product has been observed in site wells since quarterly monitoring began in July 1998.

An oil-water interface probe, which was decontaminated before each use, was used to measure the depth from the top of each well casing to the top of groundwater. The depths to water were converted to elevations using surveyed top-of-casing elevations for each well, and groundwater elevation contour maps (Figures 3 through 6) were prepared using the four sets of quarterly fluid level measurements. Figure 7 shows trends in groundwater elevations at the site since July 1998.

2.2 Wells Sampled, Sampling Methodology, and Analytical Results

Groundwater samples were collected from eight of the nine monitoring wells at UST Site 2459 during all four quarters in 2005. Sampling of MW-3 was discontinued after the second quarter 2000 because wells MW-4 and MW-5 were determined to be directly downgradient from the former USTs. Analytical results from all four quarterly sampling events of 2005 are summarized in Table 2 and are illustrated in Figure 8. Complete analytical laboratory reports are presented in Appendix B.

Each monitoring well was purged using a low-flow bladder pump lowered to the approximate midpoint of the well screen. Attached to the pump was a length of dual-bonded, Teflon™-lined tubing and safety line sufficient to reach the surface. A compressor was attached to the end of the inlet tubing, and the outlet tubing drained into a waste collection tank. Purging proceeded until three successive and stable water-quality parameter measurements were observed in each well. Stabilization was determined electronically using a PurgeScan™ water-quality instrument.

Frequent water samples were collected during well purging and were tested for several parameters (pH, turbidity, specific conductance, temperature, oxidation-reduction potential, and dissolved oxygen) using calibrated field instruments. Readings and measurements collected at each well were recorded on groundwater sample collection logs, which are presented in Appendix A. Ferrous iron concentrations were measured using a portable field kit.

Groundwater samples were collected using the low-flow pump after the field instrument measurements stabilized. Samples were collected in containers that were appropriate for the analyses being requested. The sample containers were properly identified with labels completed using a waterproof marker, and the containers were then carefully placed on ice in a cooler for delivery to a California-certified, DON-approved laboratory.

The following variances from the groundwater monitoring plan occurred during the monitoring events for the first through fourth quarters of 2005:

- Turbidity exceeded 10 nephelometric turbidity units (NTUs) during the first quarter 2005 in well OW-1 and during the second quarter 2005 in wells OW-1 and RW-1. The sampling team was unable to achieve 10 NTUs prior to sample collection, as measured by a calibrated turbidity meter. The flow rate was adjusted and the other purge measurements were monitored. When it was determined that the other parameters were stable, the samples were collected.
- The drawdown slightly exceeded the 0.3-foot limit established for performing micropurge sampling at the site during the first, second, third, and fourth quarter 2005 sampling of well MW-5. Adjustments were made to the flow rate and the drawdown was stabilized as much as possible. Samples were collected when the field parameters were stable.

The disposable pump bladder and the pump safety line were discarded and the wellhead was secured after each well was sampled. The water-level probe and bladder pump were decontaminated after each use. The dedicated Teflon™-lined discharge tubing was placed in a clean plastic bag, labeled with the well identification, and properly stored. The sampling equipment was then moved to the next well location.

The purge water and decontamination water for both quarters were properly stored in a secured aboveground waste water storage tank located in 13 Area, and were eventually transported by vacuum truck for disposal at the Demenno Kerdoon facility in Compton, California.

The quarterly groundwater samples were analyzed for the following constituents in accordance with the specified method:

- TPH as diesel by California Leaking Underground Fuel Tank (CA LUFT) Method 8015 modified
- BTEX by U.S. Environmental Protection Agency (EPA) Method 8021B
- Nitrate/nitrite as nitrogen by EPA Method 353.3
- Sulfate by EPA Method 300.0

- Alkalinity by EPA Method 310.1
- Methane by Method RSK 175

Analytical results are summarized in Table 2. Concentrations of TPH as diesel and benzene for each monitoring well sampled are plotted in Figure 8. In addition to the laboratory samples, dissolved oxygen, oxidation-reduction potential, and ferrous iron were measured in the field. Field monitoring results are presented in Figure 9 and are summarized in Table 3.

2.3 Groundwater Flow Direction and Contaminant Distribution

Groundwater conditions and the distribution of TPH as diesel and benzene in groundwater beneath the site, as observed during the four quarterly monitoring events of 2005, are described in this section. Water level data are shown in Figures 3 through 6 and are summarized in Table 1. Contaminant concentrations are shown in Figure 8 and are summarized in Table 2. Field monitoring results are shown in Figure 9 and are summarized in Table 3. Laboratory reports and chain-of-custody forms are presented in Appendix B.

Depth to groundwater beneath UST Site 2459 was measured in the site monitoring wells on February 28, April 26, August 22, and October 31, 2005 prior to sampling the wells. The measured depths were subtracted from the elevations of the tops of the well casings to determine the elevations of the groundwater surface, and groundwater elevation contour maps were prepared for each quarter (Figures 3 through 6). Trends in groundwater elevations beneath the site since July 1998 are shown on the hydrograph in Figure 7.

The groundwater elevations during the four quarterly monitoring events of 2005, in wells at UST Site 2459, ranged from approximately 76.82 to 79.52 feet. The difference between the highest and lowest groundwater levels in each well ranged from 1.54 to 1.91 feet and averaged 1.74 feet. The direction of groundwater flow was toward the southwest, with a hydraulic gradient beneath the site of 0.002 feet per foot (ft/ft) in February, 0.004 ft/ft in April, 0.002 ft/ft in August, and 0.003 ft/ft in October 2005.

None of the eight wells at the site contained free product during the four quarterly monitoring events of 2005. Free product has not been observed in any of the wells since quarterly monitoring began in July 1998. Laboratory analyses of groundwater samples (Table 2 and Figure 6) indicated that concentrations of TPH as diesel were detected in wells OW-1, OW-2, OW-3 and RW-1 during all four quarterly sampling events. TPH as diesel results were reported at less than the reporting limit for the remaining wells. Concentrations of TPH as diesel ranged from 0.53 to 3.61 milligrams per liter (mg/L) for site wells OW-1, OW-2, OW-3, and RW-1.

Benzene was detected at or above the reporting limit in well OW-2 during first and second quarterly sampling events. Concentrations of benzene ranged from 0.2J to 0.9 micrograms per liter (µg/L) for site well OW-2.

Summaries of historical laboratory analyses for UST Site 2459 are presented in Tables C-1 through C-3 of Appendix C. Per the project Sampling and Analysis Plan (SWDIV, 2003), third-party data validations were performed by The Data Validation Group, Inc. on 25 percent of the laboratory reports. The remaining laboratory reports were validated internally. Both the third-party and internal summary validation reports are provided in Appendix D.

Results were uploaded to Geotracker for the first and second quarter 2005 on June 8, 2005 (Confirmation numbers 7787221550, 1966610729, and 9222007036). Results for the third quarter 2005 were uploaded on October 26, 2005 (Confirmation numbers 1381553351 and 5657736420). Results for the fourth quarter 2005 were uploaded on December 15, 2005 (Confirmation numbers 2246112465 and 1142676353).

Concentrations of dissolved oxygen measured in the field at the time of groundwater sampling were slightly higher in the upgradient wells than in the groundwater wells that contain detectable concentrations of TPH as diesel (Figure 9), with the exception of well OW-3 during the first quarter. The oxygenated release compound (ORC®) socks were removed from wells OW-1, OW-2, and OW-3 two days prior to sampling. The oxidation-reduction potential appeared to be lower for the site and downgradient wells for the second quarter than in the first quarter. There was a general trend toward positive oxidation-reduction potential during third and fourth quarters 2005. The ferrous iron results are consistent (non-detect) throughout the site for all four quarters. The nitrate levels appear to be lower in the wells with detectable concentrations of TPH as diesel, when compared to the upgradient wells. A summary of historical field analyses for UST Site 2459 is presented in Table C-4 of Appendix C.

3.0 Quality Assurance and Quality Control

Groundwater samples were collected and preserved in accordance with EPA and CA LUFT methods during all four quarterly monitoring events of 2005, and were delivered to the laboratory within 24 hours of sample collection. Applied Physics & Chemistry Laboratory of Chino, California (a state-certified laboratory) analyzed the groundwater samples within the analytical holding times.

Field duplicate samples were collected from wells MW-4 (102910-0206), OW-1 (102910-0123), and OW-2 (102910-0164). Duplicate samples are used to assess the accuracy, precision, and consistency of the sampling program. The analytical results for the duplicate samples correlated well with the results for the primary samples (102910-205, 102910-0122, and 102910-0163).

Six trip blank samples (102910-0120, 102910-0127, 102910-0160, 102910-199, 102910-218, and 102910-226) were transported with the groundwater samples and analyzed for BTEX. Trip blanks are used to determine whether cross-contamination by volatile organic compounds has occurred during transportation of the samples to the laboratory. BTEX compounds were detected at concentrations less than, and exceeding, the reporting limits in the trip blanks. However, due to detected levels of BTEX found in the method blanks, the reporting limits were raised during the data validation process and all results for BTEX in the trip blanks are reported as not detected for this report.

Six equipment rinsate samples (102910-0126, 102910-0132, 102910-0170, 102910-0209, 102910-0217, and 102910-0225) were collected and analyzed to assess the adequacy of equipment decontamination procedures. These samples were collected by pouring analyte-free water over the water-level probe after it was decontaminated. The samples were then analyzed for BTEX and TPH as diesel. TPH as diesel was not detected at concentrations exceeding reporting limits in the equipment rinsates. During the first two quarters of 2005, BTEX compounds were detected at concentrations less than, and exceeding, the reporting limits in the equipment rinsates. However, due to detected levels of BTEX found in the method blanks and trip blanks, the reporting limits were raised for most results during the data validation process. During the third quarter 2005, ethylbenzene was detected at a concentration of 2.0 µg/L but did not affect the data since ethylbenzene was not detected in any other samples. BTEX compounds were not detected in the rinsate sample during fourth quarter 2005.

4.0 Remediation System Progress

This section summarizes the progress of the remediation activities at UST Site 2459. A bioventing/biosparging system is operating at this site.

The bioventing/biosparging system consists of one bioventing well (RW-1) and one biosparging well (BS-2). Air has been injected exclusively into well BS-2 (for 3 to 16 hours per day) since system operation began in December 2000 to evaluate whether air injected into the saturated zone would also oxygenate the overlying unsaturated zone. ORC® socks were placed in wells OW-1, OW-2, and OW-3 in January 2004 and again in March 2005 for the purpose of increasing dissolved oxygen levels in groundwater in those areas.

As of November 2005, approximately 9,634 mg/kg of TPH has been degraded in the vadose zone. This represents approximately 40.14 percent of the total vadose zone contamination that needs to be degraded in order to achieve the soil cleanup goal of 10,000 milligrams per kilogram (mg/kg) TPH (Figure 10).

5.0 Waste Management

The volumes of purged water and the decontamination water generated from monitoring wells at UST Site 2459 during the four quarters of 2005 were approximately 17, 9, 10, and 18 gallons, respectively. The water was stored in an aboveground wastewater storage tank located in the 13 Area. The purged groundwater and decontamination water from the first quarter were transported on April 18, 2005 (by Island Environmental Services to Demenno Kerdoon in Compton, California) for treatment and disposal under Uniform Hazardous Waste Manifest Number 23393597. The purged groundwater and decontamination water from the second quarter were transported on July 1, 2005 (by Island Environmental Services to Demenno Kerdoon in Compton, California) for treatment and disposal under Uniform Hazardous Waste Manifest Number 24430067. The purged groundwater and decontamination water from the third quarter were transported on September 29, 2005 (by Patriot Environmental Services to Demenno Kerdoon in Compton, California) for treatment and disposal under Uniform Hazardous Waste Manifest Number 24420791. The purged groundwater and decontamination water from the fourth quarter were transported on November 22, 2005 (by Patriot Environmental Services to Demenno Kerdoon in Compton, California) for treatment and disposal under Uniform Hazardous Waste Manifest Number 24798861. Copies of the waste manifests are presented in Appendix E.

6.0 Conclusions

The groundwater elevations in wells at UST Site 2459 ranged from approximately 76.82 to 79.52 feet during the four quarterly monitoring events of 2005; the difference between the highest and lowest groundwater levels in each well ranged from 1.54 to 1.91 feet and averaged 1.74 feet. The direction of groundwater flow was toward the southwest, with a hydraulic gradient beneath the site ranging from 0.002 ft/ft to 0.004 ft/ft.

No free product was observed in any of the monitoring wells at UST Site 2459 during the four quarterly monitoring events of 2005, which is consistent with previous observations. Laboratory analyses show that groundwater beneath the area of the former tanks has been impacted by TPH as diesel. Well OW-3 contained the highest concentration of TPH as diesel during all four quarters of 2005 (3.08 mg/L, 3.31 mg/L, 2.59 mg/L, and 3.61 mg/L, respectively). No benzene was reported above the reporting limit in the wells, except for well OW-2. In Well OW-2, benzene was detected during the first quarter at a concentration of 0.9 µg/L and during the third quarter at a concentration of 0.2J µg/L.

Concentrations of dissolved oxygen measured in the field at the time of groundwater sampling were slightly higher in the upgradient wells than in the groundwater wells that contain detectable concentrations of TPH as diesel (Figure 9), with the exception of well OW-3 during the first quarter. The ORC® socks were removed from wells OW-1, OW-2, and OW-3 two days prior to sampling. The oxidation-reduction potential appeared to be lower for the site and downgradient wells for the second quarter than in the first quarter. There was a trend toward positive oxidation-reduction potential during third and fourth quarters of 2005. The ferrous iron results were consistent (non-detect) throughout the site for all four quarters. The nitrate levels appear to be lower in the wells with detectable concentrations of TPH as diesel, when compared to the upgradient wells.

7.0 References

Brown and Caldwell, 1996, *Final Site Assessment Report, Underground Storage Tank Site 2459, Marine Corps Base Camp Pendleton, California*, February.

OHM, see OHM Remediation Services Corp.

OHM Remediation Services Corp., 1998, *Draft Corrective Action Plan, Underground Storage Tank Site 2459, Marine Corps Base Camp Pendleton, California*, November.

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San Diego County, 2004, *Site Assessment and Mitigation Manual*, Department of Environmental Health, February 18.

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SWDIV, see Southwest Division, Naval Facilities Engineering Command.

Figures

Tables

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Fluid Level Measurements – UST Site 2459 – February Through October 2005

Table 2
Summary of Groundwater Analytical Results – UST 2459 – February Through November 2005

Table 3
Summary of Field Monitoring Results – UST Site 2459 – February Through November 2005

Appendix A
Groundwater Sample Collection Logs, Fluid Level Measurement Documentation, and Operation and Maintenance Logs

Appendix B
Laboratory Reports and Chain-of-Custody Forms

Appendix C
Summary of Historical Analytical Results

Appendix D
Data Validation Reports

Appendix E
Uniform Hazardous Waste Manifests

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method Analyte Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
MW-1	7/23/1998	19951-0119	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
MW-1	7/23/1998	19951-0120	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
MW-1	10/14/1998	19951-0182	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	NA
MW-1	2/16/1999	19951-0214	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-1	5/11/1999	19951-0246	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-1	8/3/1999	19951-0275	0.48 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-1	10/20/1999	19951-0313	0.47 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-1	4/25/2000	19951-0413	0.092 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-1	4/25/2000	19951-0414	0.092 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-1	8/31/2000	19951-0473	0.092 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-1	11/27/2000	19951-0554	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-1	11/27/2000	19951-0555	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-1	3/9/2001	823304-0025	0.1 J	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-1	5/3/2001	823304-0059	0.05 J	0.5 U	1.7 J	0.5 U	2.2 J	1 J
MW-1	8/7/2001	823304-0067	0.06 J	0.2 J	0.5 U	0.5 J	1.6	5 U
MW-1	10/24/2001	823304-0085	0.08 J	0.5 U	5 U	5 U	5 U	5 U
MW-1	3/19/2002	823304-0100	0.009 J	0.5 U	0.8	0.6	1 J	NA
MW-1	5/22/2002	823304-0120	0.098 U	0.8	1 JB	1 JB	2 JB	NA
MW-1	5/22/2002	823304-0121 (Dup)	0.098 U	0.7	1 JB	1 JB	2 JB	NA
MW-1	8/27/2002	823304-0128	0.096 U	0.4 J	0.9 J	0.8 J	2 J	NA
MW-1	10/24/2002	823304-0145	0.096 U	0.3 J	0.7 J	0.4 J	0.6 J	NA
MW-1	3/18/2003	842592-0007	0.095 U	0.5 U	0.5 U	0.37 J	1.5 U	NA
MW-1	5/14/2003	842592-0025	0.094 U	0.37 J	0.5 U	0.59	1.5 U	NA
MW-1	5/14/2003	842592-0026 (Dup)	0.094 U	0.77	0.2 J	1.3	1 J	NA
MW-1	08/25/03	842592-0038	0.095 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-1	11/13/03	842592-0068	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-1	11/13/03	842592-0069 (Dup)	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-1	03/16/04	102910-0009	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-1	05/21/04	102910-0042	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-1	08/18/04	102910-0081	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method Analyte Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
MW-1	11/15/04	102910-0095	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-1	03/01/05	102910-0129	0.096 U	0.5 UJ	0.6 UJ	0.5 UJ	1.5 UJ	NA
MW-1	04/26/05	102910-0167	0.1 U	0.5 U	0.7 U	0.7 U	1.5 U	NA
MW-1	08/24/05	102910-0197	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-1	11/01/05	102910-0219	0.02 J	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	7/23/1998	19951-0118	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
MW-2	10/14/1998	19951-0181	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	NA
MW-2	2/16/1999	19951-0213	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-2	5/11/1999	19951-0245	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-2	8/3/1999	19951-0274	0.48 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-2	10/20/1999	19951-0314	0.47 U	0.5 U	0.5 U	2.3	1.5 U	5 U
MW-2	2/15/2000	19951-0384	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-2	4/25/2000	19951-0412	0.092 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-2	8/25/2000	19951-0467	.13	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-2	11/22/2000	19951-0546	0.098 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-2	3/9/2001	823304-0023	0.1 J	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-2	3/9/2001	823304-0024	0.1 J	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-2	5/3/2001	823304-0060	0.1 U	0.5 U	1.5 J	0.5 U	0.9 J	5 U
MW-2	8/8/2001	823304-0075	0.1 U	0.5 U	0.5 U	0.2 J	1 J	6 J
MW-2	10/24/2001	823304-0086	0.06 J	0.5 U	5 U	5 U	5 U	5 U
MW-2	3/20/2002	823304-0106	0.1 U	0.5 U	0.9	0.5 U	1 J	NA
MW-2	3/20/2002	823304-0107 (Dup)	0.1 U	0.5 U	1.0	0.3 J	1 J	NA
MW-2	5/22/2002	823304-0125	0.098 U	0.5 U	5 U	5 U	1 JB	NA
MW-2	8/27/2002	823304-0129	0.1	0.5 U	5 U	0.3 J	1 J	NA
MW-2	10/24/2002	823304-0146	0.096 U	0.4 J	5 U	5 U	0.5 J	NA
MW-2	10/24/2002	823304-0147 (Dup)	0.096 U	0.5 U	5 U	5 U	0.5 J	NA
MW-2	3/18/2003	842592-0008	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	3/18/2003	842592-0009 (Dup)	0.097 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	5/14/2003	842592-0027	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	08/25/03	842592-0037	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method Analyte Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
MW-2	11/12/03	842592-0064	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	03/15/04	102910-0004	0.04 J	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	03/15/04	102910-0005 (Dup)	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	05/20/04	102910-0034	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	08/18/04	102910-0080	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	11/15/04	102910-0096	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	11/15/04	102910-0097 (Dup)	0.096 U	0.5 U	1.5 U	0.5 U	2.9 U	NA
MW-2	02/28/05	102910-0125	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-2	04/26/05	102910-0161	0.1 U	0.3 J	0.8 U	0.9 U	1.6 U	NA
MW-2	08/25/05	102910-0204	0.02 J	0.2 UJ	0.5 U	0.5 U	0.9 J	NA
MW-2	11/01/05	102910-0222	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-3	2/23/1998	19951-042	0.16 Jy B	2.0 U	2.0 U	2.0 U	2.0 U	NA
MW-3	7/24/1998	19951-0124	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
MW-3	4/25/2000	19951-0409	0.092 U	.5 U	.5 U	.5 U	1.5 U	1 U
MW-3	8/31/2000	19951-0475	0.092 U	.5 U	.5 U	.5 U	1.5 U	1 U
MW-3	8/31/2000	19951-0476	0.092 U	.5 U	.5 U	.5 U	1.5 U	1 U
MW-4	7/24/1998	19951-0122	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
MW-4	10/14/1998	19951-0180	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	NA
MW-4	2/16/1999	19951-0211	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-4	5/11/1999	19951-0244	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-4	8/3/1999	19951-0273	0.48 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-4	10/20/1999	19951-0311	0.48 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-4	2/15/2000	19951-0385	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-4	4/25/2000	19951-0411	0.092 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-4	8/25/2000	19951-0466	0.1	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-4	11/27/2000	19951-0553	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-4	3/9/2001	823304-0031	0.1 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-4	5/3/2001	823304-0056	0.1 U	0.4 J	1.3 J	0.5 U	1 J	5 U
MW-4	8/7/2001	823304-0068	0.1 U	0.2 J	0.5 U	0.3 J	1 J	3 J
MW-4	10/24/2001	823304-0087	0.05 J	0.5 U	5 U	5 U	5 U	5 U

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method Analyte Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
MW-4	3/21/2002	823304-0111	8.99[a]	0.5 U	0.9	0.5 U	1 J	NA
MW-4	5/22/2002	823304-0119	0.098 U	0.5 U	0.7 JB	5 U	1 JB	NA
MW-4	8/27/2002	823304-0130	0.096 U	0.5 U	5 U	0.3 J	1 J	NA
MW-4	8/27/2002	823304-0131 (Dup)	0.01 J	0.5 U	5 U	0.5 J	1 J	NA
MW-4	10/23/2002	823304-0141	0.096 U	0.5 U	5 U	5 U	0.5 J	NA
MW-4	3/17/2003	842592-0002	0.095 U	0.5 U	0.5 U	0.35 J	1.5 U	NA
MW-4	5/14/2003	842592-0023	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-4	08/25/03	842592-0034	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-4	11/12/03	842592-0063	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-4	03/15/04	102910-0002	0.096 U	0.5 U	0.9 U	0.5 U	1.5 U	NA
MW-4	05/20/04	102910-0032	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-4	08/19/04	102910-0085	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-4	11/15/04	102910-0093	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-4	03/01/05	102910-0130	0.096 U	0.5 UJ	0.5 UJ	0.5 UJ	1.5 UJ	NA
MW-4	04/26/05	102910-0169	0.1 U	0.5 U	0.5 U	0.6 U	1.5 U	NA
MW-4	08/25/05	102910-0205	0.096 U	0.2 UJ	0.5 U	0.5 U	1 J	NA
MW-4	08/25/05	102910-0206 (Dup)	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-4	11/01/05	102910-0223	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-5	7/24/1998	19951-0123	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
MW-5	10/14/1998	19951-0179	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	NA
MW-5	2/16/1999	19951-0212	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-5	5/11/1999	19951-0243	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-5	8/3/1999	19951-0272	0.48 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-5	10/20/1999	19951-0312	0.47 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
MW-5	2/15/2000	19951-0386	0.13	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-5	2/15/2000	19951-0387	0.1	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-5	4/25/2000	19951-0410	0.092 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-5	8/25/2000	19951-0465	0.15	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-5	11/22/2000	19951-0545	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
MW-5	3/9/2001	823304-0030	0.1 J	0.5 U	0.5 U	0.5 U	1.5 U	5 U

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method Analyte Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
MW-5	5/3/2001	823304-0057	0.1 U	0.4 J	1.9 J	0.5 U	2.5 J	1 J
MW-5	5/3/2001	823304-0058	0.05 J	0.5 U	1.6 J	0.5 U	1 J	5 U
MW-5	8/7/2001	823304-0069	0.05 J	0.5 U	0.5 U	0.2 J	1 J	4 J
MW-5	8/7/2001	823304-0070	0.04 J	0.2 J	0.5 U	0.2 J	1 J	4 J
MW-5	10/24/2001	823304-0088	0.1	0.5 U	5 U	5 U	5 U	5 U
MW-5	3/21/2002	823304-0112	0.1 U	0.5 U	0.9	0.3 J	1 J	NA
MW-5	5/22/2002	823304-0118	0.03 J	0.5 U	0.7 JB	5 U	1 JB	NA
MW-5	8/27/2002	823304-0132	0.096 U	0.5 U	5 U	0.4 J	0.9 J	NA
MW-5	10/23/2002	823304-0142	0.29	0.5 U	0.9 J	0.5 J	0.7 J	NA
MW-5	3/17/2003	842592-0003	0.096 U	0.25 J	0.5 U	0.4 J	1.5 U	NA
MW-5	5/14/2003	842592-0024	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-5	08/25/03	842592-0035	0.14	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-5	08/25/03	842592-0036 (Dup)	0.11	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-5	11/12/03	842592-0062	0.095 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-5	03/15/04	102910-0003	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-5	05/20/04	102910-0033	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-5	08/19/04	102910-0084	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-5	11/15/04	102910-0094	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-5	03/01/05	102910-0131	0.01 J	0.5 U	0.5 U	0.5 U	1.5 U	NA
MW-5	04/26/05	102910-0168	0.03 J	0.5 U	0.5 U	0.6 U	1.5 U	NA
MW-5	08/25/05	102910-0207	0.03 J	0.2 UJ	0.5 U	0.5 U	0.8 J	NA
MW-5	11/01/05	102910-0224	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
OW-1	7/23/1998	19951-0115	49	8.2	11	0.24 J	8.1	5.0 U
OW-1	10/15/1998	19951-0188	10 U	6.7	8.2	1.0 U	7.4	NA
OW-1	2/16/1999	19951-0217	22.8	7.8	8.41	0.5 U	8.63	5 U
OW-1	5/12/1999	19951-0252	20.1	.5 U	.5 U	0.5 U	1.5 U	5 U
OW-1	8/4/1999	19951-0284	33.2	6.7	2.9	0.5 U	5.9	5 U
OW-1	10/20/1999	19951-0317	28	6.6	6.3	0.5 U	7.5	5 U
OW-1	2/15/2000	19951-0382	27	7.7	2.5	0.5 U	8.1	1 U
OW-1	4/26/2000	19951-0419	28	8	5.6	0.5 U	8.9	1 U

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method / Analyte / Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
OW-1	8/25/2000	19951-0470	20	6.6	7	0.5 U	2.8	1 U
OW-1	11/22/2000	19951-0549	18	6	5	0.5 U	1.5	1 U
OW-1	3/9/2001	823304-0027	19	7.3	4.5	0.5 U	2.4	5 U
OW-1	5/3/2001	823304-0063	15.4	7.9	9.6	0.4 J	3.2 J	1 J
OW-1	8/8/2001	823304-0071	17	6.9	8.9	0.5	14	3 J
OW-1	10/24/2001	823304-0089	12.9	5.6	5	0.3 J	3 J	5 U
OW-1	10/24/2001	823304-0090	15.1	5.6	5 J	0.3 J	3 J	5 U
OW-1	3/20/2002	823304-0105	11.6	2.4	4.0	0.5	5.6	NA
OW-1	5/22/2002	823304-0123	13.2	4.7	6.7 B	0.3 JB	6.9 B	NA
OW-1	8/27/2002	823304-0133	11	5.2	6.9	1 J	3 J	NA
OW-1	10/24/2002	823304-0148	12	4.3	6	0.3 J	2 J	NA
OW-1	3/18/2003	842592-0011	45	4.6	4.5	1.5	6.5	NA
OW-1	5/14/2003	842592-0030	28	1.8	3	0.5 U	0.85 J	NA
OW-1	08/25/03	842592-0040	27	2.5	3	0.5 U	1.5 U	NA
OW-1	11/13/03	842592-0071	23	2.1	2.6	0.5 U	1.5 U	NA
OW-1	03/16/04	102910-0011	4.36	0.5 U	1.3 U	0.6 U	1.5 U	NA
OW-1	05/20/04	102910-0038	4.15	0.5 U	1.2 U	0.5 U	1.5 U	NA
OW-1	08/19/04	102910-0088	4.56	0.5 U	1.4 U	0.5 U	1.5 U	NA
OW-1	11/15/04	102910-0100	3.26	0.5 U	0.6 U	0.5 U	1.5 U	NA
OW-1	02/28/05	102910-0122	2.3	0.2 J	1.7 U	0.5 U	3 U	NA
OW-1	02/28/05	102910-0123 (Dup)	2.5	0.1 J	0.5 U	0.5 U	1.5 U	NA
OW-1	04/26/05	102910-0165	2.72	0.4 J	2 U	0.9 U	4.1 U	NA
OW-1	08/25/05	102910-0201	1.9	0.4 UJ	0.9 U	0.5 U	1 J	NA
OW-1	10/31/05	102910-0216	2.78	0.5 U	0.5 U	0.5 U	1.5 U	NA
OW-2	7/23/1998	19951-0116	14 y	6.6	3.9	0.14 J	5.8	5.0 U
OW-2	10/15/1998	19951-0185	1.0 U	5.3	4.5	1.0 U	2.0 U	NA
OW-2	10/15/1998	19951-0187	1.0 U	5.3	4.6	1.0 U	3.0	NA
OW-2	2/17/1999	19951-0221	8.53	4.87	3.67	0.5 U	4.46	5 U
OW-2	5/11/1999	19951-0248	9.90	5.2	3.3	0.5 U	3.2	5 U
OW-2	5/11/1999	19951-0249	10.3	5.6	3.5	0.5 U	5.9	5 U

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method Analyte Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
OW-2	8/3/1999	19951-0277	14.2	5.4	3.5	0.5 U	3.5	5 U
OW-2	10/21/1999	19951-0320	14	5.3	3.3	0.5 U	3.7	.79 J
OW-2	2/15/2000	19951-0381	10	5	1.4	0.5 U	2	1 U
OW-2	4/26/2000	19951-0418	7.0	5.5	3.6	0.5 U	1.5	1 U
OW-2	8/25/2000	19951-0469	9.6	4.3	3.9	0.5 U	1.9	1 U
OW-2	11/22/2000	19951-0548	7.9	3.9	3.3	0.5 U	1.5 U	1 U
OW-2	3/9/2001	823304-0028	8.64	4.3	3.8	0.5 U	1 J	5 U
OW-2	5/3/2001	823304-0062	10.9	0.3 J	1.5 J	0.5 U	1.9 J	1 J
OW-2	8/8/2001	823304-0072	9.18	5.0	6.3	0.4 J	8.1	5 J
OW-2	10/24/2001	823304-0091	8.17	4.9	4 J	0.3 J	1 J	5 U
OW-2	3/21/2002	823304-0110	0.1[a] U	8.2	10.1	0.4 J	4.5	NA
OW-2	5/21/2002	823304-0114	8.8	6.2	7 B	5 U	2 JB	NA
OW-2	8/28/2002	823304-0136	9.11	5.1	7.2	0.8 J	3 J	NA
OW-2	10/24/2002	823304-0150	6.52	3.8	5.2	0.6 J	2 J	NA
OW-2	3/18/2003	842592-0010	21	3.9	3.3	0.34 J	1.3 J	NA
OW-2	5/14/2003	842592-0029	15	3.4	2.8	0.5 U	1.5 U	NA
OW-2	08/25/03	842592-0041	21	5.3	5.7	0.5 U	1.5 U	NA
OW-2	11/13/03	842592-0067	19	4.5	4.6	0.22 J	1.5 U	NA
OW-2	03/16/04	102910-0010	4.02	1 U	1.6 U	0.8 U	3.2 U	NA
OW-2	05/20/04	102910-0037	4.08	0.6 U	0.7 U	0.5 U	1.5 U	NA
OW-2	08/19/04	102910-0089	3.83	0.8 U	0.8 U	0.5 U	1.5 U	NA
OW-2	11/15/04	102910-0099	4.32	0.5 U	0.7 U	0.5 U	1.5 U	NA
OW-2	02/28/05	102910-0121	3.08	0.9	1.3 U	0.5 U	1.5 U	NA
OW-2	04/26/05	102910-0163	3.31	0.5 J	0.8 U	0.7 U	1.5 U	NA
OW-2	04/26/05	102910-0164 (Dup)	3.29	0.6	0.5 U	0.7 U	1.5 U	NA
OW-2	08/25/05	102910-0202	2.59	0.6 U	0.5 U	0.5 U	1 J	NA
OW-2	11/01/05	102910-0220	3.61	0.2 J	0.5 U	0.5 U	1.5 U	NA
OW-3	7/23/1998	19951-0117	1.0 y	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
OW-3	10/15/1998	19951-0186	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	NA
OW-3	2/17/1999	19951-0220	0.54	0.5 U	0.5 U	0.5 U	1.5 U	5 U

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method Analyte Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
OW-3	5/11/1999	19951-0247	1.10	0.5 U	0.5 U	0.5 U	1.5 U	5 U
OW-3	8/3/1999	19951-0276	1.29	0.5 U	0.5 U	0.5 U	1.5 U	5 U
OW-3	10/20/1999	19951-0315	0.47 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
OW-3	10/20/1999	19951-0316	0.47 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
OW-3	2/15/2000	19951-0383	0.6	0.5 U	0.5 U	0.5 U	1.5 U	1 U
OW-3	4/26/2000	19951-0417	1.1	0.5 U	0.5 U	0.5 U	1.5 U	1 U
OW-3	8/25/2000	19951-0468	9.4	2	0.5 U	0.5 U	1.5 U	1 U
OW-3	11/22/2000	19951-0547	5.1	.86	0.5 U	0.5 U	1.5 U	1 U
OW-3	3/9/2001	823304-0026	6.44	0.5	0.5 U	0.5 U	1.5 U	5 U
OW-3	5/3/2001	823304-0061	7.84	1.4	1.9 J	0.5 U	0.8 J	5 U
OW-3	8/8/2001	823304-0073	6.80	0.9	0.5 U	0.2 J	2.6 J	6 J
OW-3	10/24/2001	823304-0092	9.75	1.4	5 U	5 U	5 U	5 U
OW-3	3/20/2002	823304-0103	5.93	1.3	0.8	0.6	0.8 J	NA
OW-3	5/22/2002	823304-0124	9.34	1.5	1 JB	0.5 JB	2 JB	NA
OW-3	8/28/2002	823304-0137	8.38	1.2	1 J	0.4 J	2 J	NA
OW-3	10/24/2002	823304-0149	5.38	1.1	0.8 J	5 U	0.9 J	NA
OW-3	3/18/2003	842592-0012	12	0.96	0.34 J	0.22 J	1.5 U	NA
OW-3	5/14/2003	842592-0028	8.6	0.25 J	0.5 U	0.2 J	1.5 U	NA
OW-3	08/25/03	842592-0039	14 J	0.5 U	0.5 U	0.5 U	1.5 U	NA
OW-3	11/13/03	842592-0070	12	0.5 U	0.5 U	0.5 U	1.5 U	NA
OW-3	03/15/04	102910-0006	5.31	0.5 U	0.5 U	0.5 U	1.5 U	NA
OW-3	05/20/04	102910-0035	2.54	0.5 U	0.5 U	0.5 U	1.5 U	NA
OW-3	05/20/04	102910-0036 (Dup)	3.04	0.5 U	0.7 U	0.5 U	1.5 U	NA
OW-3	08/19/04	102910-0086	2.95	0.5 U	0.5 U	0.5 U	1.5 U	NA
OW-3	08/19/04	102910-0087 (Dup)	2.79	0.5 U	0.5 U	0.5 U	1.5 U	NA
OW-3	11/15/04	102910-0098	1.94	0.5 U	0.6 U	0.5 U	1.5 U	NA
OW-3	02/28/05	102910-0124	2.04	0.3 J	1.8 U	0.5 U	1.5 U	NA
OW-3	04/26/05	102910-0162	1.1	0.3 J	0.5 U	0.9 U	1.5 U	NA
OW-3	08/25/05	102910-0203	0.53	0.3 UJ	0.5 U	0.5 U	1 J	NA
OW-3	11/01/05	102910-0221	0.55	0.5 U	0.5 U	0.5 U	1.5 U	NA

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method Analyte Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
RW-1	7/23/1998	19951-0114	25 y	49	23	0.52 J	16	5.0 U
RW-1	10/15/1998	19951-0189	1.0 U	39	21	0.74 J	23	NA
RW-1	2/16/1999	19951-0215	15.6	45	21.9	.5 U	21.7	5 U
RW-1	2/16/1999	19951-0216	28.4	46.4	23.8	.5 U	21.6	5 U
RW-1	5/12/1999	19951-0253	19.5	45	30	.5 U	26	5 U
RW-1	8/4/1999	19951-0285	15.5	43.7	14.4	.48	17.9	5 U
RW-1	8/4/1999	19951-0286	10.9	46	15.4	.47	18.7	5 U
RW-1	10/21/1999	19951-0321	26	29	17	.73	18	1.4 J
RW-1	2/15/2000	19951-0380	22	11	2.1	1.5	3.2	1 U
RW-1	4/26/2000	19951-0420	15	32	14	1.3	11	1 U
RW-1	8/31/2000	19951-0474	17	18	13	.5 U	9.9	1 U
RW-1	11/22/2000	19951-0550	14	25	13	.5 U	1.5 U	1 U
RW-1	3/9/2001	823304-0029	11	0.4 J	0.5 U	0.5 U	0.6 J	5 U
RW-1	5/3/2001	823304-0064	9.45	1.4	3.5 J	0.5	4.1 J	5 U
RW-1	8/8/2001	823304-0074	9.16	0.8	1.5	0.3 J	5.8	2 J
RW-1	10/24/2001	823304-0093	7.97	0.3 J	0.5 J	0.3 J	5 U	5 U
RW-1	3/20/2002	823304-0104	2.95	0.3 J	0.9	0.7	1 J	NA
RW-1	5/22/2002	823304-0122	2.12	0.5 U	1 JB	0.4 JB	1 JB	NA
RW-1	8/28/2002	823304-0138	3.86	0.4 J	1 J	0.8 J	1 J	NA
RW-1	10/24/2002	823304-0151	1.1	0.5 U	5 U	5 U	0.6 J	NA
RW-1	3/17/2003	842592-0004	3.3	0.34 J	0.5 U	0.45 J	1.5 U	NA
RW-1	5/14/2003	842592-0031	1.9	0.5 U	0.5 U	0.5 U	1.5 U	NA
RW-1	08/25/03	842592-0042	2.4	0.5 U	0.5 U	0.5 U	1.5 U	NA
RW-1	11/13/03	842592-0072	2.2	0.5 U	0.5 U	0.5 U	1.5 U	NA
RW-1	03/16/04	102910-0012	0.49	0.5 U	1 U	0.5 U	1.6 U	NA
RW-1	05/21/04	102910-0041	2.11	0.5 U	0.5 U	0.5 U	1.5 U	NA
RW-1	08/19/04	102910-0090	1.80	0.5 U	0.7 U	0.5 U	1.5 U	NA
RW-1	11/15/04	102910-0101	0.94	0.5 U	0.5 U	0.5 U	1.5 U	NA
RW-1	03/01/05	102910-0128	2.51	0.5 U	0.5 U	0.5 U	1.5 U	NA
RW-1	04/26/05	102910-0166	0.64	0.2 J	0.5 U	0.7 U	1.5 U	NA

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method / Analyte / Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
RW-1	08/25/05	102910-0200	0.79	0.3 UJ	1.8 U	0.5 J	3.6	NA
RW-1	10/31/05	102910-0215	0.8	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	7/23/1998	19951-0113	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Equipment Rinsate	10/14/1998	19951-0178	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	NA
Equipment Rinsate	2/16/1999	19951-0218	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Equipment Rinsate	5/11/1999	19951-0242	0.5 U	NA	NA	NA	NA	NA
Equipment Rinsate	5/12/1999	19951-0251	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Equipment Rinsate	8/3/1999	19951-0271	0.49 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Equipment Rinsate	8/4/1999	19951-0287	0.485 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Equipment Rinsate	10/20/1999	19951-0309	0.48 U	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Equipment Rinsate	2/15/2000	19951-0388	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
Equipment Rinsate	4/25/2000	19951-0408	0.092 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
Equipment Rinsate	8/25/2000	19951-0471	0.093 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
Equipment Rinsate	11/27/2000	19951-0556	0.093 U	0.5 U	0.5 U	0.5 U	1.5 U	1 U
Equipment Rinsate	3/9/2001	823304-0032	0.07 J	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Equipment Rinsate	5/3/2001	823304-0065	0.1 U	0.5 U	1.1	0.5 U	1.7	2 J
Equipment Rinsate	8/7/2001	823304-0082	0.1 U	NA	NA	NA	NA	NA
Equipment Rinsate	8/8/2001	823304-0083	0.1 U	0.5 U	0.5 U	0.2 J	1 J	5 J
Equipment Rinsate	10/24/2001	823304-0094	0.1 U	0.5 U	5 U	5 U	5	5 U
Equipment Rinsate	3/19/2002	823304-0101	0.01 J	0.4 J	0.8	0.3 J	1 J	NA
Equipment Rinsate	3/20/2002	823304-0108	0.008 J	0.5 U	1	0.6	1.8	NA
Equipment Rinsate	3/21/2002	823304-0113	0.04 J	0.5 U	1.0	0.6	1.9	NA
Equipment Rinsate	5/21/2002	823304-0115	0.03 J	0.5 U	0.7 JB	5 U	1 JB	NA
Equipment Rinsate	5/22/2002	823304-0126	0.01 J	0.5 U	0.9 JB	0.4 JB	1 JB	NA
Equipment Rinsate	8/27/2002	823304-0134	0.096 U	0.5 U	5 U	0.4 J	0.4 J	NA
Equipment Rinsate	8/28/2002	823304-0139	0.096 U	0.5 U	5 U	0.3 J	0.7 J	NA
Equipment Rinsate	10/23/2002	823304-0143	0.096 U	0.5 U	5 U	5 U	0.5 J	NA
Equipment Rinsate	10/24/2002	823304-0152	0.02 J	0.5 U	5 U	5 U	0.4 J	NA
Equipment Rinsate	3/17/2003	842592-0005	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	3/18/2003	842592-0013	NA	0.5 U	0.21 J	0.53	1.1 J	NA

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method / Analyte / Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
Equipment Rinsate	5/14/2003	842592-0032	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	08/25/03	842592-0043	0.094 U	0.5 U	0.36 J	0.25 J	1.3 J	NA
Equipment Rinsate	11/12/03	842592-0065	0.095 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	11/13/03	842592-0073	0.094 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	03/15/04	102910-0007	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	03/16/04	102910-0013	0.096 U	0.5 U	1 U	0.5 U	1.6 U	NA
Equipment Rinsate	05/20/04	102910-0039	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	05/21/04	102910-0043	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	08/18/04	102910-0082	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	08/19/04	102910-0091	0.01 J	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	11/15/04	102910-0102	0.02 J	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	02/28/05	102910-0126	0.008 J	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	03/01/05	102910-0132	0.096 U	0.2 J	1.9 U	0.5 U	3.6 U	NA
Equipment Rinsate	04/26/05	102910-0170	0.1 U	0.5 U	0.5 U	0.6 U	1.5 U	NA
Equipment Rinsate	08/25/05	102910-0209	0.096 U	0.3 J	2	0.5 U	1.5 U	NA
Equipment Rinsate	10/31/05	102910-0217	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
Equipment Rinsate	11/01/05	102910-0225	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	2/23/1998	19951-026	NA	2.0 U	2.0 U	2.0 U	2.0 U	NA
Trip Blank	7/17/1998	19951-108	NA	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Trip Blank	7/23/1998	19951-0111	NA	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Trip Blank	7/24/1998	19951-0121	NA	2.0 U	2.0 U	2.0 U	2.0 U	10 U
Trip Blank	10/14/1998	19951-0176	NA	1.0 U	1.0 U	1.0 U	2.0 U	NA
Trip Blank	10/15/1998	19951-0183	NA	1.0 U	1.0 U	1.0 U	2.0 U	NA
Trip Blank	2/16/1999	19951-0209	NA	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Trip Blank	5/11/1999	19951-0241	NA	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Trip Blank	5/12/1999	19951-0250	NA	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Trip Blank	8/3/1999	19951-0269	NA	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Trip Blank	10/20/1999	19951-0308	NA	1.3	1.3	5.4	6.4	5 U
Trip Blank	10/21/1999	19951-0318	NA	0.5 U	0.5 U	0.5 U	1.5 U	3.8 J
Trip Blank	2/15/2000	19951-0389	NA	0.5 U	0.5 U	0.5 U	1.5 U	1 U

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method Analyte Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
Trip Blank	4/25/2000	19951-0407	NA	0.5 U	0.5 U	0.5 U	1.5 U	1 U
Trip Blank	4/26/2000	19951-0415	NA	0.5 U	0.5 U	0.5 U	1.5 U	1 U
Trip Blank	8/25/2000	19951-0464	NA	0.5 U	0.5 U	0.5 U	1.5 U	1 U
Trip Blank	8/31/2000	19951-0472	NA	0.5 U	0.5 U	0.5 U	1.5 U	1 U
Trip Blank	11/22/2000	19951-0544	NA	0.5 U	0.5 U	0.5 U	1.5 U	1 U
Trip Blank	11/27/2000	19951-0552	NA	0.5 U	0.5 U	0.5 U	1.5 U	1 U
Trip Blank	3/9/2001	823304-0022	NA	0.5 U	0.5 U	0.5 U	1.5 U	5 U
Trip Blank	5/3/2001	823304-0055	NA	0.7	1.6	0.5 U	1.7	5 U
Trip Blank	8/8/2001	823304-0081	NA	0.5 U	0.5 U	0.2 J	1.8	3 J
Trip Blank	10/24/2001	823304-0084	NA	0.5 U	5 U	5 U	5 U	5 U
Trip Blank	3/19/2002	823304-0099	NA	0.5 U	0.8	0.4 J	1.6	NA
Trip Blank	3/20/2002	823304-0102	NA	0.5 U	1	0.4 J	1.5	NA
Trip Blank	3/21/2002	823304-0109	NA	0.3 J	0.9	0.4 J	1.6	NA
Trip Blank	5/21/2002	823304-0116	NA	0.5 U	0.8 JB	5 U	1 JB	NA
Trip Blank	5/22/2002	823304-0117	NA	0.5 U	1 JB	0.4 JB	1 JB	NA
Trip Blank	8/27/2002	823304-0127	NA	0.5 U	0.9 J	5 U	1 J	NA
Trip Blank	8/28/2002	823304-0135	NA	0.5 U	1 J	0.8 J	1 J	NA
Trip Blank	10/23/2002	823304-0140	NA	0.5 U	5 U	5 U	0.5 J	NA
Trip Blank	10/24/2002	823304-0144	NA	0.5 U	0.9 J	0.4 J	1 J	NA
Trip Blank	3/17/2003	842592-0001	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	3/18/2003	842592-0006	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	5/14/2003	842592-0022	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	08/25/03	842592-0033	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	11/12/03	842592-0061	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	11/13/03	842592-0066	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	03/15/04	102910-0001	NA	0.5 U	0.9 U	0.5 U	1.5 U	NA
Trip Blank	03/16/04	102910-0008	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	05/20/04	102910-0031	NA	0.5 U	0.6 U	0.5 U	1.5 U	NA
Trip Blank	05/21/04	102910-0040	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	08/18/04	102910-0071	NA	0.5 U	1.5 U	0.5 U	3.1 U	NA

Table C-1
Historical Groundwater Summaries - Site 2459, Camp Pendleton

Method Analyte Unit			8015M - TPH Diesel (mg/L)	8021B/8260B Benzene (µg/L)	8021B/8260B Ethylbenzene (µg/L)	8021B/8260B Toluene (µg/L)	8021B/8260B Xylenes (total) (µg/L)	8021B/8260B MTBE (µg/L)
Location Code	Date Sampled	Sample Number						
Trip Blank	08/19/04	102910-0083	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	11/15/04	102910-0092	NA	0.5 U	0.7 U	0.5 U	1.5 U	NA
Trip Blank	02/28/05	102910-0120	NA	0.5 U	1.9 U	0.5 U	1.5 U	NA
Trip Blank	03/01/05	102910-0127	NA	0.5 UJ	0.5 UJ	0.5 UJ	1.5 UJ	NA
Trip Blank	04/26/05	102910-0160	NA	0.5 U	0.7 U	0.8 U	1.5 U	NA
Trip Blank	08/25/05	102910-0199	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	10/31/05	102910-0218	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA
Trip Blank	11/01/05	102910-0226	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA

[a] *The diesel results for MW-4 and OW-2 collected 3/21/02 appear to be transposed and should be considered suspect. The bottles may have been switched in the field or laboratory. The reported results are inconsistent with historical data and should not be used.*

B - positive value was found in method blank
E - analysis result is over the calibration range
EPA - U.S. Environmental Protection Agency
J - estimated
M - modified
mg/L - milligrams per liter
MTBE - methyl tert-butyl ether
NA - not analyzed
TPH - total petroleum hydrocarbons
U - not detected above, or equal to, the stated reporting limit
UST - underground storage tank
y - fuel pattern for the sample result does not match that of the calibration standard
µg/L - micrograms per liter

Table C-2
Historical Groundwater Summaries for Inorganic Analytes - Site 2459, Camp Pendleton

Method / Analyte / Unit			RSK175 Methane (µg/L)	EPA 310.1 Alkalinity (as $CaCO_3$) (mg/L)	EPA 353.3/300.0 Nitrate/Nitrite (mg/L)	EPA 300.0 Sulfate (mg/L)	EPA 376.2 Sulfide (mg/L)	EPA 6010B Lead (mg/L)
Location Code	Date Sampled	Sample Number						
MW-1	7/23/1998	19951-0119	2.9	NA	39.1	85.5	NA	0.50 U
MW-1	10/14/1998	19951-0182	3.1 B	NA	37.0	85.0	NA	NA
MW-1	2/16/1999	19951-0214	1 U	NA	31.3	81.5	NA	NA
MW-1	5/11/1999	19951-0246	8	NA	30.2	95.3	NA	NA
MW-1	8/3/1999	19951-0275	3.5	NA	26.1	91.7	NA	NA
MW-1	10/20/1999	19951-0313	11	NA	28.5	87.6	NA	NA
MW-1	4/25/2000	19951-0413	1.6	NA	36.5	94.2	NA	NA
MW-1	8/31/2000	19951-0473	31	NA	22.9	94.9	NA	NA
MW-1	11/27/2000	19951-0554	1.2	NA	26.7	95.1	NA	NA
MW-1	11/27/2000	19951-0555	.75 J	NA	27.2	95.7	NA	NA
MW-1	3/9/2001	823304-0025	3	361	24.2	76	NA	NA
MW-1	5/3/2001	823304-0059	3 U	363	24.4	83	NA	NA
MW-1	8/7/2001	823304-0067	6.9	382	23.5	77	NA	NA
MW-1	10/24/2001	823304-0085	3	382	8.1	98.9 J	NA	NA
MW-1	3/19/2002	823304-0100	3 U	406	18.2	81.4	NA	NA
MW-1	5/22/2002	823304-0120	3 U	394	23.5	83.4 J	NA	NA
MW-1	8/27/2002	823304-0128	3 U	392	27.8	86.8	NA	NA
MW-1	10/24/2002	823304-0145	3 U	383	27.1	98.6 J	NA	NA
MW-1	3/18/2003	842592-0007	3 U	382	24.4	84.4	NA	NA
MW-1	5/14/2003	842592-0025	3 U	392	30.1	88.4	NA	NA
MW-1	5/14/2003	842592-0026 (Dup)	3 U	382	32.8	88.9	NA	NA
MW-1	8/25/2003	842592-0038	0.73 J	377 J	29.1	89.9	NA	NA
MW-1	11/13/2003	842592-0068	2.5 J	500	32.2	94.3	NA	NA
MW-1	3/16/2004	102910-0009	3 U	417	32.9	91.2	NA	NA
MW-1	5/21/2004	102910-0042	3 U	382	42.8	89.1	NA	NA
MW-1	8/18/2004	102910-0081	3 U	331	50	109	NA	NA
MW-1	11/15/2004	102910-0095	3 U	397	65.6	58.5	NA	NA
MW-1	03/01/05	102910-0129	3 U	402	22.1	89.5	NA	NA
MW-1	04/26/05	102910-0167	3 U	323	63.4	121	NA	NA
MW-1	08/24/05	102910-0197	3 U	327	15.6	32.9	NA	NA
MW-1	11/01/05	102910-0219	3 U	314	52.7	65.3	NA	NA
MW-2	7/23/1998	19951-0118	0.87 J	NA	38.7	57.5	NA	0.50 U
MW-2	10/14/1998	19951-0181	0.48 JB	NA	32.3	60.6	NA	NA
MW-2	2/16/1999	19951-0213	1.81	NA	26.4	64	NA	NA
MW-2	5/11/1999	19951-0245	1 U	NA	37.1	70.4	NA	NA
MW-2	8/3/1999	19951-0274	1 U	NA	38.6	63.4	NA	NA
MW-2	10/20/1999	19951-0314	1 U	NA	34.1	64.1	NA	NA
MW-2	2/15/2000	19951-0384	.61 J	NA	35.2	68	NA	NA
MW-2	4/25/2000	19951-0412	1 U	NA	39.9	69.4	NA	NA
MW-2	8/25/2000	19951-0467	1 U	NA	42.0	313	NA	NA
MW-2	11/22/2000	19951-0546	.66 J	NA	44.5	65.3	NA	NA
MW-2	3/9/2001	823304-0023	3 U	389	50.9	54	NA	NA
MW-2	3/9/2001	823304-0024	3 U	NA	NA	NA	NA	NA
MW-2	5/3/2001	823304-0060	3 U	424	38.4	61	NA	NA
MW-2	8/8/2001	823304-0075	3 U	414	25.3	58	NA	NA
MW-2	10/24/2001	823304-0086	3 U	414	15.0	74.6 J	NA	NA
MW-2	3/20/2002	823304-0106	3 U	394	19.9	59.2	NA	NA
MW-2	5/22/2002	823304-0125	3 U	385	56.9	63.0 J	NA	NA
MW-2	8/27/2002	823304-0129	3 U	390	54.0	64.2	NA	NA
MW-2	10/24/2002	823304-0146	3 U	404	43.9	74.1 J	NA	NA
MW-2	3/18/2003	842592-0008	3 U	382	69.3	60.5	NA	NA
MW-2	3/18/2003	842592-0009 (Dup)	3 U	392	62.1	55.8	NA	NA
MW-2	5/14/2003	842592-0027	3 U	375	61.6	57.9	NA	NA
MW-2	8/25/2003	842592-0037	3 U	367	63.3	55.4	NA	NA
MW-2	11/12/2003	842592-0064	3 U	374	78.2	56.2	NA	NA
MW-2	3/15/2004	102910-0004	3 U	414	20.6	65.1	NA	NA
MW-2	5/20/2004	102910-0034	3 U	407	65.2	57.4	NA	NA

Table C-2
Historical Groundwater Summaries for Inorganic Analytes - Site 2459, Camp Pendleton

Method / Analyte / Unit			RSK175 Methane (µg/L)	EPA 310.1 Alkalinity (as $CaCO_3$) (mg/L)	EPA 353.3/300.0 Nitrate/Nitrite (mg/L)	EPA 300.0 Sulfate (mg/L)	EPA 376.2 Sulfide (mg/L)	EPA 6010B Lead (mg/L)
Location Code	Date Sampled	Sample Number						
MW-2	8/18/2004	102910-0080	3 U	372	76.6	59.5	NA	NA
MW-2	11/15/2004	102910-0096	3 U	389	36.1	97.7	NA	NA
MW-2	02/28/05	102910-0125	3 U	374	48.7	74.9	NA	NA
MW-2	04/26/05	102910-0161	3 U	407	52.5	60.9	NA	NA
MW-2	08/25/05	102910-0204	3 U	411	43.4	59.4	NA	NA
MW-2	11/01/05	102910-0222	3 U	385	49.3	59.6	NA	NA
MW-3	2/23/1998	19951-042	6	NA	7.9	171	0.10 U	NA
MW-3	7/24/1998	19951-0124	4.4	NA	8.8	184	NA	0.50 U
MW-3	4/25/2000	19951-0409	3.3	NA	11.9	156	NA	NA
MW-3	8/31/2000	19951-0475	12	NA	11.4	166	NA	NA
MW-3	8/31/2000	19951-0476	11	NA	11.7	167	NA	NA
MW-4	7/24/1998	19951-0122	0.6 J	NA	0.37	192	NA	0.50 U
MW-4	10/14/1998	19951-0180	0.42 JB	NA	0.040 J	149	NA	NA
MW-4	2/16/1999	19951-0211	.568 J	NA	.167	191	NA	NA
MW-4	5/11/1999	19951-0244	.5 J	NA	.366	210	NA	NA
MW-4	8/3/1999	19951-0273	1 U	NA	.952	201	NA	NA
MW-4	10/20/1999	19951-0311	1 U	NA	.888	218	NA	NA
MW-4	2/15/2000	19951-0385	1 U	NA	1 U	246	NA	NA
MW-4	4/25/2000	19951-0411	1 U	NA	.5 U	236	NA	NA
MW-4	8/25/2000	19951-0466	1 U	NA	3.77	313	NA	NA
MW-4	11/27/2000	19951-0553	.35 J	NA	6.01	318	NA	NA
MW-4	3/9/2001	823304-0031	3 U	474	5.67	290	NA	NA
MW-4	5/3/2001	823304-0056	3 U	493	1.1	300	NA	NA
MW-4	8/7/2001	823304-0068	3 U	511	1.0	306	NA	NA
MW-4	10/24/2001	823304-0087	3 U	504	1.1	328	NA	NA
MW-4	3/21/2002	823304-0111	3 U	498	0.29	312	NA	NA
MW-4	5/22/2002	823304-0119	3 U	484	0.53	276	NA	NA
MW-4	8/27/2002	823304-0130	3 U	482	1.8	298	NA	NA
MW-4	10/23/2002	823304-0141	3 U	465	1.3	258	NA	NA
MW-4	3/17/2003	842592-0002	3 U	438	1.9	188	NA	NA
MW-4	5/14/2003	842592-0023	3 U	422	1.66	190	NA	NA
MW-4	8/25/2003	842592-0034	3 U	452	1.68	255	NA	NA
MW-4	11/12/2003	842592-0063	3 U	457	3.21	257	NA	NA
MW-4	3/15/2004	102910-0002	3 U	530	4.4	231	NA	NA
MW-4	5/20/2004	102910-0032	3 U	501	6.4	242	NA	NA
MW-4	8/19/2004	102910-0085	3 U	506	7.6	259	NA	NA
MW-4	11/15/2004	102910-0093	3 U	549	4.4	335	NA	NA
MW-4	03/01/05	102910-0130	3 U	520	2.5	329	NA	NA
MW-4	04/26/05	102910-0169	3 U	548	3.8	552	NA	NA
MW-4	08/25/05	102910-0205	3 U	543	17	701	NA	NA
MW-4	11/01/05	102910-0223	3 U	517	4.8	608	NA	NA
MW-5	7/24/1998	19951-0123	0.36 J	NA	12.0	142	NA	0.50 U
MW-5	10/14/1998	19951-0179	270	NA	14.6	121	NA	NA
MW-5	2/16/1999	19951-0212	116	NA	19.8	93.5	NA	NA
MW-5	5/11/1999	19951-0243	200	NA	33	145	NA	NA
MW-5	8/3/1999	19951-0272	71	NA	24	120	NA	NA
MW-5	10/20/1999	19951-0312	130	NA	28.8	110	NA	NA
MW-5	2/15/2000	19951-0386	60	NA	28.7	133	NA	NA
MW-5	4/25/2000	19951-0410	73	NA	28.9	124	NA	NA
MW-5	8/25/2000	19951-0465	65	NA	20.3	118	NA	NA
MW-5	11/22/2000	19951-0545	280	NA	15.9	126	NA	NA
MW-5	3/9/2001	823304-0030	150	480	5.27	290	NA	NA
MW-5	5/3/2001	823304-0057	95	326	2.88	153	NA	NA
MW-5	5/3/2001	823304-0058	87	328	2.89	150	NA	NA
MW-5	8/7/2001	823304-0069	210	276	2.68	159	NA	NA
MW-5	10/24/2001	823304-0088	70	248	2.7	157	NA	NA
MW-5	3/21/2002	823304-0112	3 U	289	4.0	150	NA	NA

Table C-2
Historical Groundwater Summaries for Inorganic Analytes - Site 2459, Camp Pendleton

Method			RSK175	EPA 310.1	EPA 353.3/300.0	EPA 300.0	EPA 376.2	EPA 6010B
Analyte			Methane	Alkalinity (as $CaCO_3$)	Nitrate/Nitrite	Sulfate	Sulfide	Lead
Unit			(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Location Code	Date Sampled	Sample Number						
MW-5	5/22/2002	823304-0118	3 U	339	16.1	139	NA	NA
MW-5	8/27/2002	823304-0132	3 U	352	9.3	147	NA	NA
MW-5	10/23/2002	823304-0142	3 U	276	8.5	140	NA	NA
MW-5	3/17/2003	842592-0003	1.2 J	332	9.6	141	NA	NA
MW-5	5/14/2003	842592-0024	1.2 J	335	12.2	139	NA	NA
MW-5	8/25/2003	842592-0035	0.8 J	282	8.55	140	NA	NA
MW-5	11/12/2003	842592-0062	3 U	324	11.2	138	NA	NA
MW-5	3/15/2004	102910-0003	3 U	380	14	137	NA	NA
MW-5	5/20/2004	102910-0033	3 U	352	15.2	130	NA	NA
MW-5	8/19/2004	102910-0084	3 U	343	18	125	NA	NA
MW-5	11/15/2004	102910-0094	3 U	382	14.8	134	NA	NA
MW-5	03/01/05	102910-0131	3 U	390	12.7	127	NA	NA
MW-5	04/26/05	102910-0168	3 U	398	13	118	NA	NA
MW-5	08/25/05	102910-0207	3 U	377	12.8	126	NA	NA
MW-5	11/01/05	102910-0224	3 U	377	12.4	127	NA	NA
OW-1	7/23/1998	19951-0115	3500	NA	0.021 J	0.34	NA	0.50 U
OW-1	10/15/1998	19951-0188	2100	NA	2.0 UG	4.0 UG	NA	NA
OW-1	2/16/1999	19951-0217	2120	NA	.15	2.01	NA	NA
OW-1	5/12/1999	19951-0252	1100	NA	.1 U	1 U	NA	NA
OW-1	8/4/1999	19951-0284	640	NA	.5 U	1 U	NA	NA
OW-1	10/20/1999	19951-0317	695	NA	2.5 U	1 U	NA	NA
OW-1	2/15/2000	19951-0382	830	NA	1 U	2.72	NA	NA
OW-1	4/26/2000	19951-0419	1100	NA	.5 U	1 U	NA	NA
OW-1	8/25/2000	19951-0470	4500	NA	3.23	136	NA	NA
OW-1	11/22/2000	19951-0549	1600	NA	3.64	1.06	NA	NA
OW-1	3/9/2001	823304-0027	1400	417	1.6	8 J	NA	NA
OW-1	5/3/2001	823304-0063	710	391	0.24	1.4	NA	NA
OW-1	8/8/2001	823304-0071	2300	322	0.1 U	6	NA	NA
OW-1	10/24/2001	823304-0089	1000	317	0.18	6.2 J	NA	NA
OW-1	10/24/2001	823304-0090	950	317	0.060 J	6.1 J	NA	NA
OW-1	3/20/2002	823304-0105	300	272	0.1 U	7.1 J	NA	NA
OW-1	5/22/2002	823304-0123	800	243	0.17	50 U	NA	NA
OW-1	8/27/2002	823304-0133	700	245	0.11	4.6 J	NA	NA
OW-1	10/24/2002	823304-0148	300	261	0.28	30.9 J	NA	NA
OW-1	3/18/2003	842592-0011	180	313	0.5 U	42.2	NA	NA
OW-1	5/14/2003	842592-0030	380	236	0.5 U	206	NA	NA
OW-1	8/25/2003	842592-0040	340	262	0.5 U	112	NA	NA
OW-1	11/13/2003	842592-0071	440	221	0.5 U	54.4	NA	NA
OW-1	3/16/2004	102910-0011	3	294	0.81	141	NA	NA
OW-1	5/20/2004	102910-0038	7.9	347	0.58	117	NA	NA
OW-1	8/19/2004	102910-0088	39	342	0.74	53.1	NA	NA
OW-1	11/15/2004	102910-0100	3 U	452	0.18 J	27.1	NA	NA
OW-1	02/28/05	102910-0122	3 U	316	1.4	43.6	NA	NA
OW-1	04/26/05	102910-0165	3 U	463	4	61.8	NA	NA
OW-1	08/25/05	102910-0201	3 U	495	5	44.3	NA	NA
OW-1	10/31/05	102910-0216	3 U	482	1.2	24.2	NA	NA
OW-2	7/23/1998	19951-0116	5200	NA	0.012 J	2.0	NA	0.50 U
OW-2	10/15/1998	19951-0187	2500	NA	1.0 U	2.0 UG	NA	NA
OW-2	2/17/1999	19951-0221	9410	NA	0.5 U	5 U	NA	NA
OW-2	5/11/1999	19951-0248	310	NA	0.1 U	1 U	NA	NA
OW-2	5/11/1999	19951-0249	NA	NA	NA	NA	NA	NA
OW-2	8/3/1999	19951-0277	180 J	NA	0.1 U	1 U	NA	NA
OW-2	10/21/1999	19951-0320	410	NA	0.1 U	1 U	NA	NA
OW-2	2/15/2000	19951-0381	940	NA	0.1 U	1.74	NA	NA
OW-2	4/26/2000	19951-0418	1300	NA	0.5 U	1 U	NA	NA
OW-2	8/25/2000	19951-0469	4700	NA	3.32	141	NA	NA
OW-2	11/22/2000	19951-0548	1200	NA	3.78	18.4	NA	NA

Table C-2
Historical Groundwater Summaries for Inorganic Analytes - Site 2459, Camp Pendleton

Method			RSK175	EPA 310.1	EPA 353.3/300.0	EPA 300.0	EPA 376.2	EPA 6010B
Analyte			Methane	Alkalinity (as $CaCO_3$)	Nitrate/Nitrite	Sulfate	Sulfide	Lead
Unit			(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Location Code	Date Sampled	Sample Number						
OW-2	3/9/2001	823304-0028	2100	465	0.1 U	5 J	NA	NA
OW-2	5/3/2001	823304-0062	2900	565	0.21	1.7	NA	NA
OW-2	8/8/2001	823304-0072	1900	570	0.1 U	6	NA	NA
OW-2	10/24/2001	823304-0091	1700	570	0.1 U	6.2 J	NA	NA
OW-2	3/21/2002	823304-0110	4400	591	0.1 U	50 U	NA	NA
OW-2	5/21/2002	823304-0114	4300	570	0.14	50 U	NA	NA
OW-2	8/28/2002	823304-0136	2300	582	1.5	12.4 J	NA	NA
OW-2	10/24/2002	823304-0150	2900	616	0.22	14.6 J	NA	NA
OW-2	3/18/2003	842592-0010	1700	477	0.5 U	1.16	NA	NA
OW-2	5/14/2003	842592-0029	1900	456	0.5 U	21.7	NA	NA
OW-2	8/25/2003	842592-0041	2300	499	0.5 U	19.4	NA	NA
OW-2	11/13/2003	842592-0067	2800	505	0.5 U	4.08	NA	NA
OW-2	3/16/2004	102910-0010	95	561	5	197	NA	NA
OW-2	5/20/2004	102910-0037	87	478	0.58	149	NA	NA
OW-2	8/19/2004	102910-0089	430	468	0.61	109	NA	NA
OW-2	11/15/2004	102910-0099	3 U	556	0.5 U	60.1	NA	NA
OW-2	02/28/05	102910-0121	7.5	490	4	71.2	NA	NA
OW-2	04/26/05	102910-0163	3 U	422	17.5	137	NA	NA
OW-2	08/25/05	102910-0202	3 U	494	4.6	119	NA	NA
OW-2	11/01/05	102910-0220	220	480	2.3	101	NA	NA
OW-3	7/23/1998	19951-0117	46	NA	13.5	49.7	NA	0.50 U
OW-3	10/15/1998	19951-0186	0.98 JB	NA	15.1	50.1	NA	NA
OW-3	2/17/1999	19951-0220	4.07	NA	12	55.6	NA	NA
OW-3	5/11/1999	19951-0247	34	NA	13	56.2	NA	NA
OW-3	8/3/1999	19951-0276	19	NA	19.9	54.9	NA	NA
OW-3	10/20/1999	19951-0315	2.5	NA	24.7	59.5	NA	NA
OW-3	2/15/2000	19951-0383	1.1	NA	31	62.4	NA	NA
OW-3	4/26/2000	19951-0417	1.7	NA	24.6	65.3	NA	NA
OW-3	8/25/2000	19951-0468	380	NA	9.23	35.0	NA	NA
OW-3	11/22/2000	19951-0547	460	NA	6.21	42.5	NA	NA
OW-3	3/9/2001	823304-0026	380	734	3.37	40 J	NA	NA
OW-3	5/3/2001	823304-0061	180	867	0.54	35	NA	NA
OW-3	8/8/2001	823304-0073	42	842	0.46	29	NA	NA
OW-3	10/24/2001	823304-0092	180	902	0.098 J	45.0 J	NA	NA
OW-3	3/20/2002	823304-0103	610	907	0.71	33.8 J	NA	NA
OW-3	5/22/2002	823304-0124	710	888	0.51	34.4 J	NA	NA
OW-3	8/28/2002	823304-0137	740	838	2.9	57.9 J	NA	NA
OW-3	10/24/2002	823304-0149	720	810	0.81	53.6 J	NA	NA
OW-3	3/18/2003	842592-0012	600	602	1.55	29.6	NA	NA
OW-3	5/14/2003	842592-0028	190	499	14.6	70.1	NA	NA
OW-3	8/25/2003	842592-0039	2.1 J	509	13.5	99	NA	NA
OW-3	11/13/2003	842592-0070	3	367	9.24	96.7	NA	NA
OW-3	3/15/2004	102910-0006	66	276	8.3	162	NA	NA
OW-3	5/20/2004	102910-0035	50	470	7.9	153	NA	NA
OW-3	8/19/2004	102910-0086	190	440	6.5	130	NA	NA
OW-3	11/15/2004	102910-0098	3 U	468	4.1	109	NA	NA
OW-3	02/28/05	102910-0124	3 U	478	2.1	93	NA	NA
OW-3	04/26/05	102910-0162	3 U	346	37	115	NA	NA
OW-3	08/25/05	102910-0203	3 U	294	73.6	88.9	NA	NA
OW-3	11/01/05	102910-0221	3 U	272	63.5	78.4	NA	NA
RW-1	7/23/1998	19951-0114	5300	NA	0.012 J	0.45	NA	0.50 U
RW-1	10/15/1998	19951-0189	2400	NA	1.0 UG	2.0 UG	NA	NA
RW-1	2/16/1999	19951-0215	1200	NA	0.152	5.37	NA	NA
RW-1	5/12/1999	19951-0253	1900	NA	0.1 U	1 U	NA	NA
RW-1	8/4/1999	19951-0285	470	NA	0.5 U	1 U	NA	NA
RW-1	10/21/1999	19951-0321	1533	NA	0.1 U	1 U	NA	NA
RW-1	2/15/2000	19951-0380	1100	NA	0.1 U	1 U	NA	NA

Table C-2
Historical Groundwater Summaries for Inorganic Analytes - Site 2459, Camp Pendleton

Method Analyte Unit			RSK175 Methane (µg/L)	EPA 310.1 Alkalinity (as $CaCO_3$) (mg/L)	EPA 353.3/300.0 Nitrate/Nitrite (mg/L)	EPA 300.0 Sulfate (mg/L)	EPA 376.2 Sulfide (mg/L)	EPA 6010B Lead (mg/L)
Location Code	Date Sampled	Sample Number						
RW-1	4/26/2000	19951-0420	2000	NA	0.5 U	1 U	NA	NA
RW-1	8/31/2000	19951-0474	4800	NA	0.5 U	44.8	NA	NA
RW-1	11/22/2000	19951-0550	3900	NA	3.86	1 U	NA	NA
RW-1	3/9/2001	823304-0029	18	198	1.6	110	NA	NA
RW-1	5/3/2001	823304-0064	27	265	0.1	64	NA	NA
RW-1	8/8/2001	823304-0074	26	230	0.38	36	NA	NA
RW-1	10/24/2001	823304-0093	120	313	0.1 U	24.1 J	NA	NA
RW-1	3/20/2002	823304-0104	15	201	0.26	24.0 J	NA	NA
RW-1	5/22/2002	823304-0122	3 U	168	0.54	31.4 J	NA	NA
RW-1	8/28/2002	823304-0138	6	197	3.3	48.6 J	NA	NA
RW-1	10/24/2002	823304-0151	3 U	176	1.4	93.2 J	NA	NA
RW-1	3/17/2003	842592-0004	0.83 J	199	1.45	52	NA	NA
RW-1	5/14/2003	842592-0031	0.98 J	181	0.874	46	NA	NA
RW-1	8/25/2003	842592-0042	3.4	180	.966	35.8	NA	NA
RW-1	11/13/2003	842592-0072	1.2 J	219	1.48	51.9	NA	NA
RW-1	3/16/2004	102910-0012	3 U	205	0.63	52.9	NA	NA
RW-1	5/21/2004	102910-0041	3 U	179	0.95 J	341	NA	NA
RW-1	8/19/2004	102910-0090	7.9	312	0.63	128	NA	NA
RW-1	11/15/2004	102910-0101	3 U	307	0.53	88.5	NA	NA
RW-1	03/01/05	102910-0128	3 U	210	0.9	142	NA	NA
RW-1	04/26/05	102910-0166	3 U	233	1	44.8	NA	NA
RW-1	08/25/05	102910-0200	3 U	293	0.61	28.8	NA	NA
RW-1	10/31/05	102910-0215	3 U	273	0.18 J	24.2	NA	NA

B - positive value was found in method blank
EPA - U.S. Environmental Protection Agency
J - estimated
mg/L - milligrams per liter
NA - not analyzed
U - not detected above, or equal to, the stated reporting limit
UST - underground storage tank
µg/L - micrograms per liter

Table C-3
Historical Groundwater Summaries for PAHs - Site 2459, Camp Pendleton

Method			EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310
Analyte			Acenaph-thene	Acenaph-thylene	Anthracene	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene
Unit			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Location Code	Date Sampled	Sample Number							
MW-1	7/23/1998	19951-0119	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-1	3/18/2003	842592-0007	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-1	5/14/2003	842592-0025	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-1	5/14/2003	842592-0026 (Dup)	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-1	8/25/2003	842592-0038	2 U	3.9 U	0.2 U	0.2 U	0.2 U	0.39 U	0.39 U
MW-1	11/13/2003	842592-0068	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-1	11/13/2003	842592-0069 (Dup)	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-2	7/23/1998	19951-0118	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-2	3/18/2003	842592-0008	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-2	3/18/2003	842592-0009 (Dup)	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-2	5/14/2003	842592-0027	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-2	8/25/2003	842592-0037	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-2	11/12/2003	842592-0064	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-3	7/24/1998	19951-0124	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-4	7/24/1998	19951-0122	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-4	3/17/2003	842592-0002	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-4	5/14/2003	842592-0023	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-4	8/25/2003	842592-0034	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-4	11/12/2003	842592-0063	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-5	7/24/1998	19951-0123	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-5	3/17/2003	842592-0003	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-5	5/14/2003	842592-0024	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-5	8/25/2003	842592-0035	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-5	8/25/2003	842592-0036 (Dup)	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
MW-5	11/12/2003	842592-0062	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-1	7/23/1998	19951-0115	10 U	10 U	10 U	10 U	10 U	10 U	10 U
OW-1	3/18/2003	842592-0011	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-1	5/14/2003	842592-0030	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-1	8/25/2003	842592-0040	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-1	11/13/2003	842592-0071	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-2	7/23/1998	19951-0116	10 U	10 U	10 U	10 U	10 U	10 U	10 U
OW-2	3/18/2003	842592-0010	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-2	5/14/2003	842592-0029	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-2	8/25/2003	842592-0041	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-2	11/13/2003	842592-0067	2 U	3.9 U	0.2 U	0.2 U	0.2 U	0.39 U	0.39 U
OW-3	7/23/1998	19951-0117	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Table C-3
Historical Groundwater Summaries for PAHs - Site 2459, Camp Pendleton

Method			EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310
Analyte			Acenaph-thene	Acenaph-thylene	Anthracene	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene
Unit			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
OW-3	3/18/2003	842592-0012	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-3	5/14/2003	842592-0028	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-3	8/25/2003	842592-0039	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
OW-3	11/13/2003	842592-0070	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
RW-1	7/23/1998	19951-0114	10 U	10 U	10 U	10 U	10 U	10 U	10 U
RW-1	3/17/2003	842592-0004	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
RW-1	5/14/2003	842592-0031	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
RW-1	8/25/2003	842592-0042	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
RW-1	11/13/2003	842592-0072	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
Equipment Rinsate	3/18/2003	842592-0013	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
Equipment Rinsate	5/14/2003	842592-0032	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
Equipment Rinsate	8/25/2003	842592-0043	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
Equipment Rinsate	11/12/2003	842592-0065	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U
Equipment Rinsate	11/13/2003	842592-0073	1.9 U	3.8 U	0.19 U	0.19 U	0.19 U	0.38 U	0.38 U

Table C-3
Historical Groundwater Summaries for PAHs - Site 2459, Camp Pendleton

Method			EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310
Analyte			Benzo(k)-fluoranthene	Chrysene	Dibenzo(a,h)-anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene
Unit			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Location Code	Date Sampled	Sample Number							
MW-1	7/23/1998	19951-0119	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-1	3/18/2003	842592-0007	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
MW-1	5/14/2003	842592-0025	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
MW-1	5/14/2003	842592-0026 (Dup)	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
MW-1	8/25/2003	842592-0038	0.2 U	0.2 U	0.39 U	0.39 U	0.39 U	0.2 U	0.2 U
MW-1	11/13/2003	842592-0068	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
MW-1	11/13/2003	842592-0069 (Dup)	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
MW-2	7/23/1998	19951-0118	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-2	3/18/2003	842592-0008	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
MW-2	3/18/2003	842592-0009 (Dup)	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
MW-2	5/14/2003	842592-0027	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
MW-2	8/25/2003	842592-0037	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
MW-2	11/12/2003	842592-0064	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
MW-3	7/24/1998	19951-0124	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-4	7/24/1998	19951-0122	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-4	3/17/2003	842592-0002	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
MW-4	5/14/2003	842592-0023	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
MW-4	8/25/2003	842592-0034	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
MW-4	11/12/2003	842592-0063	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
MW-5	7/24/1998	19951-0123	10 U	10 U	10 U	10 U	10 U	10 U	10 U
MW-5	3/17/2003	842592-0003	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
MW-5	5/14/2003	842592-0024	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
MW-5	8/25/2003	842592-0035	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
MW-5	8/25/2003	842592-0036 (Dup)	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
MW-5	11/12/2003	842592-0062	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
OW-1	7/23/1998	19951-0115	10 U	10 U	10 U	10 U	12	10 U	66
OW-1	3/18/2003	842592-0011	0.19 U	0.19 U	0.38 U	3.3	4.3	0.19 U	1.9 U
OW-1	5/14/2003	842592-0030	0.19 U	0.19 U	0.38 U	1.8	3.2	0.19 U	1.9 U
OW-1	8/25/2003	842592-0040	0.19 U	0.19 U	0.38 U	0.38 U	2.5	0.19 U	0.19 U
OW-1	11/13/2003	842592-0071	0.19 U	0.19 U	0.38 U	0.38 U	3.8	0.19 U	0.19 U
OW-2	7/23/1998	19951-0116	10 U	10 U	10 U	10 U	2.2 J	10 U	88
OW-2	3/18/2003	842592-0010	0.19 U	0.19 U	0.38 U	1.6	2.2	0.19 U	1.9 U
OW-2	5/14/2003	842592-0029	0.19 U	0.19 U	0.38 U	0.5	3.4	0.19 U	1.9 U
OW-2	8/25/2003	842592-0041	0.19 U	0.19 U	0.38 U	0.38 U	5.4	0.19 U	0.19 U
OW-2	11/13/2003	842592-0067	0.2 U	0.2 U	0.39 U	0.27 J	4.3	0.2 U	0.2 U
OW-3	7/23/1998	19951-0117	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Table C-3
Historical Groundwater Summaries for PAHs - Site 2459, Camp Pendleton

Method			EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310
Analyte			Benzo(k)-fluoranthene	Chrysene	Dibenzo(a,h)-anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene
Unit			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
OW-3	3/18/2003	842592-0012	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
OW-3	5/14/2003	842592-0028	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
OW-3	8/25/2003	842592-0039	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
OW-3	11/13/2003	842592-0070	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
RW-1	7/23/1998	19951-0114	10 U	10 U	10 U	10 U	6.7 J	10 U	72
RW-1	3/17/2003	842592-0004	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
RW-1	5/14/2003	842592-0031	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
RW-1	8/25/2003	842592-0042	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
RW-1	11/13/2003	842592-0072	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
Equipment Rinsate	3/18/2003	842592-0013	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
Equipment Rinsate	5/14/2003	842592-0032	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	1.9 U
Equipment Rinsate	8/25/2003	842592-0043	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
Equipment Rinsate	11/12/2003	842592-0065	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U
Equipment Rinsate	11/13/2003	842592-0073	0.19 U	0.19 U	0.38 U	0.38 U	0.38 U	0.19 U	0.19 U

Table C-3
Historical Groundwater Summaries for PAHs - Site 2459, Camp Pendleton

Method			EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310
Analyte			Phenanthrene	Pyrene	2-Chloro-naphthalene	2-Methyl-naphthalene
Unit			(µg/L)	(µg/L)	(µg/L)	(µg/L)
Location Code	Date Sampled	Sample Number				
MW-1	7/23/1998	19951-0119	10 U	10 U	10 U	10 U
MW-1	3/18/2003	842592-0007	0.19 U	0.19 U	NA	NA
MW-1	5/14/2003	842592-0025	0.19 U	0.19 U	NA	NA
MW-1	5/14/2003	842592-0026 (Dup)	0.19 U	0.19 U	NA	NA
MW-1	8/25/2003	842592-0038	0.2 U	0.2 U	NA	NA
MW-1	11/13/2003	842592-0068	0.19 U	0.19 U	NA	NA
MW-1	11/13/2003	842592-0069 (Dup)	0.19 U	0.19 U	NA	NA
MW-2	7/23/1998	19951-0118	10 U	10 U	10 U	10 U
MW-2	3/18/2003	842592-0008	0.19 U	0.19 U	NA	NA
MW-2	3/18/2003	842592-0009 (Dup)	0.19 U	0.19 U	NA	NA
MW-2	5/14/2003	842592-0027	0.19 U	0.19 U	NA	NA
MW-2	8/25/2003	842592-0037	0.19 U	0.19 U	NA	NA
MW-2	11/12/2003	842592-0064	0.19 U	0.19 U	NA	NA
MW-3	7/24/1998	19951-0124	10 U	10 U	10 U	10 U
MW-4	7/24/1998	19951-0122	10 U	10 U	10 U	10 U
MW-4	3/17/2003	842592-0002	0.19 U	0.19 U	NA	NA
MW-4	5/14/2003	842592-0023	0.19 U	0.19 U	NA	NA
MW-4	8/25/2003	842592-0034	0.19 U	0.19 U	NA	NA
MW-4	11/12/2003	842592-0063	0.19 U	0.19 U	NA	NA
MW-5	7/24/1998	19951-0123	10 U	10 U	10 U	10 U
MW-5	3/17/2003	842592-0003	0.19 U	0.19 U	NA	NA
MW-5	5/14/2003	842592-0024	0.19 U	0.19 U	NA	NA
MW-5	8/25/2003	842592-0035	0.19 U	0.19 U	NA	NA
MW-5	8/25/2003	842592-0036 (Dup)	0.19 U	0.19 U	NA	NA
MW-5	11/12/2003	842592-0062	0.19 U	0.19 U	NA	NA
OW-1	7/23/1998	19951-0115	13	10 U	10 U	78
OW-1	3/18/2003	842592-0011	0.19 U	0.19 U	NA	NA
OW-1	5/14/2003	842592-0030	0.19 U	0.19 U	NA	NA
OW-1	8/25/2003	842592-0040	0.19 U	0.19 U	NA	NA
OW-1	11/13/2003	842592-0071	0.19 U	0.19 U	NA	NA
OW-2	7/23/1998	19951-0116	2.2 J	10 U	10 U	8.9 J
OW-2	3/18/2003	842592-0010	0.19 U	0.19 U	NA	NA
OW-2	5/14/2003	842592-0029	0.19 U	0.19 U	NA	NA
OW-2	8/25/2003	842592-0041	0.19 U	0.19 U	NA	NA
OW-2	11/13/2003	842592-0067	0.2 U	0.2 U	NA	NA
OW-3	7/23/1998	19951-0117	10 U	10 U	10 U	10 U

Table C-3
Historical Groundwater Summaries for PAHs - Site 2459, Camp Pendleton

Method			EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310	EPA 8270C/8310
Analyte			Phenanthrene	Pyrene	2-Chloro-naphthalene	2-Methyl-naphthalene
Unit			(µg/L)	(µg/L)	(µg/L)	(µg/L)
OW-3	3/18/2003	842592-0012	0.19 U	0.19 U	NA	NA
OW-3	5/14/2003	842592-0028	0.19 U	0.19 U	NA	NA
OW-3	8/25/2003	842592-0039	0.19 U	0.19 U	NA	NA
OW-3	11/13/2003	842592-0070	0.19 U	0.19 U	NA	NA
RW-1	7/23/1998	19951-0114	6.8 J	10 U	10 U	78
RW-1	3/17/2003	842592-0004	0.19 U	0.19 U	NA	NA
RW-1	5/14/2003	842592-0031	0.19 U	0.19 U	NA	NA
RW-1	8/25/2003	842592-0042	0.19 U	0.19 U	NA	NA
RW-1	11/13/2003	842592-0072	0.19 U	0.19 U	NA	NA
Equipment Rinsate	3/18/2003	842592-0013	0.19 U	0.19 U	NA	NA
Equipment Rinsate	5/14/2003	842592-0032	0.19 U	0.19 U	NA	NA
Equipment Rinsate	8/25/2003	842592-0043	0.19 U	0.19 U	NA	NA
Equipment Rinsate	11/12/2003	842592-0065	0.19 U	0.19 U	NA	NA
Equipment Rinsate	11/13/2003	842592-0073	0.19 U	0.19 U	NA	NA

EPA - U.S. Environmental Protection Agency
J - estimated
PAHs - polycyclic aromatic hydrocarbons
U - not detected above, or equal to, the stated reporting limit
UST - underground storage tank
µg/L - micrograms per liter

Table C-4
Historical Summary of Field Monitoring Results - UST Site 2459

Well	Date	Dissolved Oxygen (mg/L)	Electrical Conductivity (mS/cm)	Ferrous Iron (mg/L)	Oxidation-Reduction Potential (mV)	Water Temperature (°C)
MW-1	7/23/1998	0.25	2.02	ND	+205	23.5
MW-1	10/14/1998	1.43	1.98	ND	+185	21.1
MW-1	2/15/1999	0.57	1.89	ND	+103	20.8
MW-1	5/10/1999	0.64	1.88	ND	+162	22
MW-1	8/2/1999	0.57	1.89	ND	+124	23.9
MW-1	10/19/1999	1.09	1.8	ND	+110	21.4
MW-1	2/15/2000	NM	NM	NM	NM	NM
MW-1	4/24/2000	2.09	1.81	ND	+145	22.8
MW-1	8/31/2000	2.28	1.77	ND	+34.6	23.08
MW-1	11/22/2000	9.66	1.944	ND	+44.2	20.69
MW-1	3/9/2001	4.59	1.90	ND	+101.2	16.9
MW-1	4/30/2001	5.03	2.06	ND	+251.2	17.6
MW-1	8/7/2001	4.72	1.86	ND	+479.1	23.8
MW-1	10/22/2001	5.09	1.85	ND	+112.0	20.9
MW-1	3/19/2002	2.24	1.99	ND	+21.0	22.90
MW-1	5/22/2002	5.50	1.48	ND	+197	23.87
MW-1	8/27/2002	4.50	1.83	ND	+166	24.09
MW-1	11/1/2002	5.09	1.67	ND	+102.6	22.78
MW-1	3/18/2003	4.68	1.66	ND	+261	23.1
MW-1	5/14/2003	4.04	1.61	ND	+131	20.9
MW-1	8/25/2003	3.93	1.65	ND	+184	26.29
MW-1	11/13/2003	3.68	1.61	ND	+332	22.18
MW-1	3/16/2004	2.92	1.97	ND	+232	21.85
MW-1	5/21/2004	3.95	1.96	ND	+247	22.92
MW-1	8/18/2004	3.68	1.89	ND	+312	28.50
MW-1	11/15/2004	3.57	1.57	ND	+73	27.10
MW-1	3/1/2005	3.43	1.55	ND	+39	21.12
MW-1	4/26/2005	0.70	2.14	ND	-95	23.19
MW-1	8/24/2005	5.04	2.14	ND	-6	25.23
MW-1	11/1/2005	5.21	2.43	ND	+44	23.25
MW-2	7/23/1998	0.5	2.04	ND	+144	23.8
MW-2	10/14/1998	3.17	2.03	ND	+170	21.2
MW-2	2/15/1999	0.44	1.95	ND	+110	20.3
MW-2	5/10/1999	0.72	1.93	ND	+147	22.8
MW-2	8/2/1999	0.76	2.08	ND	+154	24.3
MW-2	10/19/1999	0.97	1.86	ND	+120	23.1
MW-2	2/15/2000	1.64	2.00	ND	+146	21.2
MW-2	4/24/2000	0.64	1.84	ND	+136	23.7
MW-2	8/25/2000	0.83	2.07	ND	+216.4	23.1
MW-2	11/22/2000	NM	2.09	ND	+69.4	20.34
MW-2	3/9/2001	1.11	2.07	ND	+22.4	18.0
MW-2	4/30/2001	1.25	2.12	ND	+346.0	20.1
MW-2	8/7/2001	0.79	2.12	ND	+286.9	22.5
MW-2	10/22/2001	1.25	2.18	ND	+135.6	23.0
MW-2	3/19/2002	0.55	1.96	ND	+4.0	24.28
MW-2	5/22/2002	1.02	1.75	ND	+178	24.13
MW-2	8/27/2002	2.26	2.16	ND	+153	24.38
MW-2	11/1/2002	1.55	1.91	ND	+90.8	23.40
MW-2	3/18/2003	1.50	2.08	ND	+128	23.3
MW-2	5/14/2003	0.70	1.96	ND	+63	22.5

Table C-4
Historical Summary of Field Monitoring Results - UST Site 2459

Well	Date	Dissolved Oxygen (mg/L)	Electrical Conductivity (mS/cm)	Ferrous Iron (mg/L)	Oxidation-Reduction Potential (mV)	Water Temperature (°C)
MW-2	8/25/2003	0.94	2.03	ND	+187	26.35
MW-2	11/12/2003	1.46	1.86	ND	+350	23.02
MW-2	3/15/2004	2.40	2.39	ND	+259	24.58
MW-2	5/20/2004	2.03	2.36	ND	+255	23.53
MW-2	8/18/2004	0.83	2.26	ND	+316	25.02
MW-2	11/15/2004	2.70	2.16	ND	-134	25.40
MW-2	2/28/2005	2.99	1.89	ND	+39	23.33
MW-2	4/26/2005	0.76	2.27	ND	-212	20.03
MW-2	8/25/2005	0.46	1.91	ND	-50	26.45
MW-2	11/1/2005	0.66	2.24	ND	+6	27.02
MW-3	7/23/1998	1.05	1.82	ND	+181	23.4
MW-3	4/24/2000	0.78	1.66	ND	+180	21.4
MW-3	8/31/2000	2.26	1.72	ND	+168.4	22.06
MW-3	2/28/2005	NA	NA	NA	NA	NA
MW-3	4/24/2005	NA	NA	NA	NA	NA
MW-4	7/23/1998	3.3	1.78	ND	+142	23
MW-4	10/14/1998	0.37	1.73	ND	+190	20.4
MW-4	2/15/1999	0.55	1.75	ND	+90	19.4
MW-4	5/10/1999	0.84	1.84	ND	+156	22.4
MW-4	8/2/1999	1.75	1.82	ND	+130	24.4
MW-4	10/19/1999	1.57	1.78	ND	+164	19.3
MW-4	2/15/2000	1.21	2.00	ND	+214	21.1
MW-4	4/24/2000	1.87	1.68	ND	+155	21.3
MW-4	8/25/2000	1.31	1.97	NM	+208.9	24.32
MW-4	11/22/2000	3.63	2.87	ND	+64.6	16.53
MW-4	3/9/2001	1.47	3.07	ND	+207.6	14.3
MW-4	4/30/2001	3.08	3.23	ND	+346.5	21.6
MW-4	8/7/2001	2.08	3.12	ND	+313.9	24.3
MW-4	10/22/2001	7.27	3.08	ND	+265.9	21.8
MW-4	3/19/2002	0.70	1.98	ND	-24.0	22.33
MW-4	5/22/2002	1.07	1.59	ND	+181	22.41
MW-4	8/27/2002	1.91	1.84	ND	+132	23.78
MW-4	11/1/2002	2.31	1.59	ND	+190.3	22.36
MW-4	3/17/2003	2.45	1.48	ND	+296	22.2
MW-4	5/14/2003	1.67	1.48	ND	+168	21.3
MW-4	8/25/2003	0.82	1.78	ND	+213	22.62
MW-4	11/12/2003	3.10	1.82	ND	+343	22.41
MW-4	3/15/2004	1.56	2.47	ND	+284	21.97
MW-4	5/20/2004	1.96	2.91	ND	+237	21.90
MW-4	8/19/2004	1.48	2.83	ND	+388	22.51
MW-4	11/15/2004	1.88	2.31	1.5	-175	20.75
MW-4	3/1/2005	2.36	2.09	ND	+79	21.15
MW-4	4/26/2005	0.40	2.67	ND	-91	23.09
MW-4	8/25/2005	0.74	2.47	ND	-114	24.97
MW-4	11/1/2005	2.18	2.71	ND	+63	24.53
MW-5	7/23/1998	1.3	1.4	ND	+158	23
MW-5	10/14/1998	0.28	1.58	ND	+154	17.4
MW-5	2/15/1999	0.52	1.66	ND	+85	19.6
MW-5	5/10/1999	0.85	2.11	ND	+152	22.7

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Historical Summary of Field Monitoring Results - UST Site 2459

Well	Date	Dissolved Oxygen (mg/L)	Electrical Conductivity (mS/cm)	Ferrous Iron (mg/L)	Oxidation-Reduction Potential (mV)	Water Temperature (°C)
MW-5	8/2/1999	1.53	1.95	ND	+135	21.7
MW-5	10/19/1999	2.47	1.77	ND	+158	19.7
MW-5	2/15/2000	1.95	3.10	ND	+173	21.5
MW-5	4/24/2000	2.39	1.75	ND	+158	20.3
MW-5	8/25/2000	1.55	1.86	ND	+152.8	23.71
MW-5	11/22/2000	2.59	1.67	ND	+31.8	19.84
MW-5	3/9/2001	1.08	1.59	ND	+192.4	13.6
MW-5	4/30/2001	2.83	1.56	ND	+327.8	20.3
MW-5	8/7/2001	2.27	1.42	ND	+417.1	23.5
MW-5	10/22/2001	7.03	1.40	ND	+243.8	20.6
MW-5	3/19/2002	2.50	1.28	ND	-16.0	21.47
MW-5	5/22/2002	1.65	1.19	ND	+230	22.24
MW-5	8/27/2002	2.61	1.47	ND	+131	24.11
MW-5	11/1/2002	5.29	1.21	ND	+171.8	22.77
MW-5	3/17/2003	5.03	1.39	ND	+181	22.2
MW-5	5/14/2003	1.36	1.36	ND	+118	21.2
MW-5	8/25/2003	5.30	1.236	ND	+198	23.30
MW-5	11/12/2003	2.62	1.328	ND	+279	21.99
MW-5	3/15/2004	0.09	1.66	ND	+263	22.00
MW-5	5/20/2004	4.10	2.50	ND	+253	21.33
MW-5	8/19/2004	1.95	1.75	ND	+383	22.55
MW-5	11/15/2004	2.42	1.58	ND	-31	22.84
MW-5	3/1/2005	3.90	1.42	ND	+82	21.87
MW-5	4/26/2005	0.46	1.75	ND	-84	22.91
MW-5	8/25/2005	2.28	1.45	ND	-22	25.65
MW-5	11/1/2005	2.79	1.67	ND	+59	24.65
OW-1	7/23/1998	0.17	1.91	ND	+68	23.7
OW-1	10/14/1998	0.31	2.15	0.4	+67	18.5
OW-1	2/15/1999	0.03	2.15	1.4	+21	16.9
OW-1	5/10/1999	0.66	2.09	1.6	+37	22.1
OW-1	8/2/1999	0.63	2.07	2	-78	19.1
OW-1	10/19/1999	0.6	2.09	3	-45	22.7
OW-1	2/15/2000	1.22	2.39	ND	-50	14.9
OW-1	4/24/2000	0.39	2.10	3.2	-31	19.2
OW-1	8/25/2000	1.26	1.33	3.0	-142.8	21.11
OW-1	11/22/2000	3.27	1.54	3.6	-135.2	18.33
OW-1	3/9/2001	0.86	1.45	3.6	-107.6	13.5
OW-1	4/30/2001	0.49	1.40	4.4	-89.7	19.4
OW-1	8/7/2001	0.44	1.28	3.6	-56.4	23.8
OW-1	10/22/2001	0.61	1.28	ND	-82.1	24.0
OW-1	3/19/2002	0.21	0.94	ND	-119.0	30.16
OW-1	5/22/2002	0.81	0.87	1.8	+110	28.75
OW-1	8/27/2002	2.13	1.14	3.5	-19	29.81
OW-1	11/1/2002	2.14	1.08	2.0	-121.2	29.60
OW-1	11/1/2002	1.80	1.40	2.5	-83.7	27.60
OW-1	3/18/2003	1.20	1.14	2.0	+117	31.9
OW-1	5/14/2003	1.13	1.30	2.6	+48	31.4
OW-1	8/25/2003	0.80	1.232	1.2	+44	32.18
OW-1	11/13/2003	2.40	1.054	3.0	+280	29.35

Table C-4
Historical Summary of Field Monitoring Results - UST Site 2459

Well	Date	Dissolved Oxygen (mg/L)	Electrical Conductivity (mS/cm)	Ferrous Iron (mg/L)	Oxidation-Reduction Potential (mV)	Water Temperature (°C)
OW-1	3/16/2004	9.83[a]	1.66	ND	+243	30.20
OW-1	5/20/2004	15.38[a]	1.69	ND	+258	30.27
OW-1	8/19/2004	10.9[a]	1.50	ND	+387	28.92
OW-1	11/15/2004	2.56	0.003	ND	-85	29.47
OW-1	2/28/2005	1.48	1.23	ND	-58	26.34
OW-1	4/26/2005	0.85	1.80	ND	-110	26.59
OW-1	8/25/2005	4.67	1.43	ND	+6	29.52
OW-1	10/31/2005	3.21	1.63	ND	+34	28.52
OW-2	7/23/1998	0.15	1.3	1.2	-16	24
OW-2	10/14/1998	0.89	1.48	1	+22	19.3
OW-2	2/15/1999	1.87	1.34	1.6	-43	19.7
OW-2	5/10/1999	0.54	1.54	1.4	+37	22.2
OW-2	8/2/1999	0.65	1.4	2	-164	21.3
OW-2	10/19/1999	0.72	1.48	2.1	-105	16.4
OW-2	2/15/2000	1.71	1.90	ND	-26	15.2
OW-2	4/24/2000	0.39	1.51	2.4	-58	19.7
OW-2	8/25/2000	0.94	1.53	3.4	-136	21.88
OW-2	11/22/2000	1.68	1.71	3.2	-127.6	16.92
OW-2	3/9/2001	1.23	1.53	2.6	-141.0	11.8
OW-2	4/30/2001	0.74	1.54	1.4	-48.5	18.2
OW-2	8/7/2001	0.68	1.53	1.7	-9.8	22.5
OW-2	10/22/2001	1.13	1.59	4	-75.4	22.0
OW-2	3/19/2002	0.30	1.39	2.0	-150.0	25.96
OW-2	5/21/2002	0.46	1.22	2.1	+100	26.38
OW-2	8/28/2002	2.42	1.53	2.6	+59	26.85
OW-2	3/18/2003	2.68	1.28	1.6	+83	29.6
OW-2	5/14/2003	0.58	1.28	1.8	+88	28.4
OW-2	8/25/2003	1.14	1.385	2.2	-32	29.72
OW-2	11/13/2003	1.06	1.327	3.0	+254	25.87
OW-2	3/16/2004	10.93[a]	2.22	ND	+245	27.58
OW-2	5/20/2004	12.1[a]	2.01	ND	+268	21.64
OW-2	8/19/2004	14.58[a]	1.83	ND	+369	28.92
OW-2	11/15/2004	4.30	1.78	ND	-40	28.57
OW-2	2/28/2005	0.77	1.67	ND	-118	24.65
OW-2	4/26/2005	1.13	2.31	ND	-163	24.90
OW-2	8/25/2005	6.11	1.76	ND	+4	28.34
OW-2	10/31/2005	3.21	1.63	ND	+34	28.52
OW-3	7/23/1998	0.58	2.79	ND	+112	24.2
OW-3	10/14/1998	1.34	2.72	ND	+190	18.5
OW-3	2/15/1999	0.78	2.7	ND	+144	19.4
OW-3	5/10/1999	0.62	2.36	ND	+169	22.7
OW-3	8/2/1999	0.6	2.74	ND	+104	25.7
OW-3	10/19/1999	0.85	2.44	ND	+110	23
OW-3	2/15/2000	1.39	2.42	ND	+108	21.1
OW-3	4/24/2000	1.10	1.80	ND	+141	22.8
OW-3	8/25/2000	2.80	2.47	ND	+104.2	22.02
OW-3	11/22/2000	1.71	2.87	ND	-14.2	20.6
OW-3	3/9/2001	1.32	3.36	ND	+76.6	13.6

Table C-4
Historical Summary of Field Monitoring Results - UST Site 2459

Well	Date	Dissolved Oxygen (mg/L)	Electrical Conductivity (mS/cm)	Ferrous Iron (mg/L)	Oxidation-Reduction Potential (mV)	Water Temperature (°C)
OW-3	4/30/2001	2.76	1.90	ND	+346.6	18.9
OW-3	8/7/2001	3.05	2.69	ND	+390.3	22.0
OW-3	10/22/2001	2.24	2.64	ND	+50.0	23.1
OW-3	3/19/2002	0.34	2.16	ND	+81.0	24.57
OW-3	5/22/2002	1.29	1.90	ND	+173	26.85
OW-3	8/28/2002	2.51	2.27	ND	+104	29.99
OW-3	11/1/2002	1.35	2.08	ND	+12.1	25.33
OW-3	3/18/2003	0.96	1.89	ND	+106	26.2
OW-3	5/14/2003	1.36	1.39	ND	+116	26.1
OW-3	8/25/2003	0.96	1.391	ND	+202	28.19
OW-3	11/13/2003	3.64	1.334	ND	+379	26.87
OW-3	3/15/2004	16.52[a]	1.90	ND	+240	25.68
OW-3	5/20/2004	18.62[a]	1.72	ND	+259	25.68
OW-3	8/19/2004	19.81[a]	1.69	ND	+383	25.48
OW-3	11/15/2004	9.65	1.50	ND	-53	27.78
OW-3	2/28/2005	9.30	1.41	ND	+30	24.24
OW-3	4/26/2005	2.28	2.01	ND	-137	22.08
OW-3	8/25/2005	18.66[b]	1.80	ND	+29	30.70
OW-3	11/1/2005	11.31	1.99	ND	+88	29.40
RW-1	7/23/1998	0.4	1.52	4.6	-32	23.6
RW-1	10/14/1998	0.34	1.63	2.8	-10	18.3
RW-1	2/15/1999	4.78	1.7	2.7	-0.03	18.9
RW-1	5/10/1999	0.58	1.56	2.8	-0.07	22.5
RW-1	8/2/1999	0.58	1.56	3	-136	15.4
RW-1	10/19/1999	0.47	1.46	2.4	-101	15.5
RW-1	2/15/2000	1.12	NM	3.2	-20	NM
RW-1	4/24/2000	0.47	1.46	3.2	-42	19.9
RW-1	8/31/2000	0.24	1.29	1.4	-94.6	22.45
RW-1	11/22/2000	2.29	1.46	1.8	-168.1	19.25
RW-1	3/9/2001	9.16	1.30	3.2	+64.5	14.4
RW-1	4/30/2001	0.53	1.29	1.2	-43.5	21.8
RW-1	8/7/2001	0.88	1.16	0.3	+145.6	25.7
RW-1	10/22/2001	0.71	1.19	1	-67.9	25.0
RW-1	3/19/2002	0.43	0.97	ND	-34.0	29.85
RW-1	5/22/2002	2.02	0.87	ND	+166	29.43
RW-1	8/28/2002	2.99	1.19	ND	+109	32.41
RW-1	11/1/2002	4.90	1.14	ND	+263.9	31.84
RW-1	3/17/2003	4.50	1.19	ND	+192	32.0
RW-1	5/14/2003	6.16	1.08	ND	+106	31.6
RW-1	8/25/2003	4.08	1.09	0.8	+24	34.62
RW-1	11/13/2003	4.06	1.071	0.1	+276	30.02
RW-1	3/16/2004	4.37	1.27	ND	+259	31.29
RW-1	5/21/2004	3.96	1.78	ND	+259	27.75
RW-1	8/19/2004	2.82	1.63	ND	+386	31.96
RW-1	11/15/2004	3.36	0.002	ND	-88	29.68
RW-1	3/1/2005	2.79	12.29	ND	-94	25.55
RW-1	4/26/2005	0.52	1.30	ND	-147	28.15
RW-1	8/25/2005	8.93	1.11	ND	+12	28.68
RW-1	10/31/2005	2.92	1.28	ND	+23	30.88

Table C-4
Historical Summary of Field Monitoring Results - UST Site 2459

Well	Date	Dissolved Oxygen (mg/L)	Electrical Conductivity (mS/cm)	Ferrous Iron (mg/L)	Oxidation-Reduction Potential (mV)	Water Temperature (°C)

a - The team discovered prior to sampling that ORC socks were present in the well. The ORC socks were pulled just prior to sampling. The field results for these wells are most likely impacted by the ORC.

b - The dissolved oxygen reading for OW-3 is most likely anomalous for the August sampling event. Small air bubbles were forming on the membrane during analysis.

mg/L - milligrams per liter

mS/cm - millisiemens per centimeter

mV - millivolts

NA - not analyzed

ND - not detected

UST - underground storage tank

° C - degrees Celsius

Table 1
Fluid Level Measurements - UST Site 2459 - February Through October 2005

Well No.	Date	Wellhead Elevation (ft msl)	Depth to Top of Screen (ft bgs)	Total Depth (ft bgs)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Corrected Groundwater Elevation (ft msl)
MW-1	2/28/2005	114.42	24.50	58.10	36.81	ND	0.00	77.61
	4/26/2005	114.42	24.50	58.10	34.90	ND	0.00	79.52
	8/22/2005	114.42	24.50	58.10	35.69	ND	0.00	78.73
	10/31/2005	114.42	24.50	58.10	36.30	ND	0.00	78.12
MW-2	2/28/2005	107.50	25.00	54.50	30.16	ND	0.00	77.34
	4/26/2005	107.50	25.00	54.50	28.39	ND	0.00	79.11
	8/22/2005	107.50	25.00	54.50	29.01	ND	0.00	78.49
	10/31/2005	107.50	25.00	54.50	29.59	ND	0.00	77.91
MW-3	2/28/2005	107.59	25.00	54.57	30.25	ND	0.00	77.34
	4/26/2005	107.59	25.00	54.57	28.59	ND	0.00	79.00
	8/22/2005	107.59	25.00	54.57	29.16	ND	0.00	78.43
	10/31/2005	107.59	25.00	54.57	29.75	ND	0.00	77.84
MW-4	2/28/2005	106.57	26.00	41.00	29.19	ND	0.00	77.38
	4/26/2005	106.57	26.00	41.00	27.65	ND	0.00	78.92
	8/22/2005	106.57	26.00	41.00	28.19	ND	0.00	78.38
	10/31/2005	106.57	26.00	41.00	28.78	ND	0.00	77.79
MW-5	2/28/2005	106.22	51.50	61.50	29.40	ND	0.00	76.82
	4/26/2005	106.22	51.50	61.50	27.78	ND	0.00	78.44
	8/22/2005	106.22	51.50	61.50	28.34	ND	0.00	77.88
	10/31/2005	106.22	51.50	61.50	28.97	ND	0.00	77.25
RW-1	2/28/2005	107.87	14.50	55.00	30.28	ND	0.00	77.59
	4/26/2005	107.87	14.50	55.00	28.54	ND	0.00	79.33
	8/22/2005	107.87	14.50	55.00	28.43	ND	0.00	79.44
	10/31/2005	107.87	14.50	55.00	29.82	ND	0.00	78.05
OW-1	2/28/2005	108.02	25.00	44.61	30.57	ND	0.00	77.45
	4/26/2005	108.02	25.00	44.61	28.78	ND	0.00	79.24
	8/22/2005	108.02	25.00	44.61	29.43	ND	0.00	78.59
	10/31/2005	108.02	25.00	44.61	30.03	ND	0.00	77.99
OW-2	2/28/2005	107.57	25.00	43.85	30.15	ND	0.00	77.42
	4/26/2005	107.57	25.00	43.85	28.41	ND	0.00	79.16
	8/22/2005	107.57	25.00	43.85	29.03	ND	0.00	78.54
	10/31/2005	107.57	25.00	43.85	29.62	ND	0.00	77.95
OW-3	2/28/2005	108.39	25.00	44.65	30.95	ND	0.00	77.44
	4/26/2005	108.39	25.00	44.65	29.13	ND	0.00	79.26
	8/22/2005	108.39	25.00	44.65	29.79	ND	0.00	78.60
	10/31/2005	108.39	25.00	44.65	30.38	ND	0.00	78.01

bgs - below ground surface
ft - feet
msl - mean sea level
ND - not detected
UST - underground storage tank

Table 2
Summary of Groundwater Analytical Results - UST Site 2459 - February Through November 2005

Method			8015B - TPH	EPA 8021B	EPA 8021B	EPA 8021B	EPA 8021B	RSK175	EPA 310.1	EPA 353.3	EPA 300.0
Analyte			Diesel	Benzene	Ethylbenzene	Toluene	Xylenes (total)	Methane	Alkalinity (as $CaCO_3$)	Nitrate/Nitrite as N	Sulfate
Unit			(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)
Location Code	Date Sampled	Sample Number									
MW-1	03/01/05	102910-0129	0.096 U	0.5 UJ	0.6 UJ	0.5 UJ	1.5 UJ	3 U	402	22.1	89.5
MW-1	04/26/05	102910-0167	0.1 U	0.5 U	0.7 U	0.7 U	1.5 U	3 U	323	63.4	121
MW-1	08/24/05	102910-0197	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	3 U	327	15.6	32.9
MW-1	11/01/05	102910-0219	0.02 J	0.5 U	0.5 U	0.5 U	1.5 U	3 U	314	52.7	65.3
MW-2	02/28/05	102910-0125	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	3 U	374	48.7	74.9
MW-2	04/26/05	102910-0161	0.1 U	0.3 J	0.8 U	0.9 U	1.6 U	3 U	407	52.5	60.9
MW-2	08/25/05	102910-0204	0.02 J	0.2 UJ	0.5 U	0.5 U	0.9 J	3 U	411	43.4	59.4
MW-2	11/01/05	102910-0222	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	3 U	385	49.3	59.6
MW-4	03/01/05	102910-0130	0.096 U	0.5 UJ	0.5 UJ	0.5 UJ	1.5 UJ	3 U	520	2.5	329
MW-4	04/26/05	102910-0169	0.1 U	0.5 U	0.5 U	0.6 U	1.5 U	3 U	548	3.8	552
MW-4	08/25/05	102910-0205	0.096 U	0.2 UJ	0.5 U	0.5 U	1 J	3 U	543	17	701
MW-4	08/25/05	102910-0206 (Dup)	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA	NA	NA	NA
MW-4	11/01/05	102910-0223	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	3 U	517	4.8	608
MW-5	03/01/05	102910-0131	0.01 J	0.5 U	0.5 U	0.5 U	1.5 U	3 U	390	12.7	127
MW-5	04/26/05	102910-0168	0.03 J	0.5 U	0.5 U	0.6 U	1.5 U	3 U	398	13	118
MW-5	08/25/05	102910-0207	0.03 J	0.2 UJ	0.5 U	0.5 U	0.8 J	3 U	377	12.8	126
MW-5	11/01/05	102910-0224	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	3 U	377	12.4	127
OW-1	02/28/05	102910-0122	2.3	0.2 J	1.7 U	0.5 U	3 U	3 U	316	1.4	43.6
OW-1	02/28/05	102910-0123 (Dup)	2.5	0.1 J	0.5 U	0.5 U	1.5 U	NA	NA	NA	NA
OW-1	04/26/05	102910-0165	2.72	0.4 J	2 U	0.9 U	4.1 U	3 U	463	4	61.8
OW-1	08/25/05	102910-0201	1.9	0.4 UJ	0.9 U	0.5 U	1 J	3 U	495	5	44.3
OW-1	10/31/05	102910-0216	2.78	0.5 U	0.5 U	0.5 U	1.5 U	3 U	482	1.2	24.2
OW-2	02/28/05	102910-0121	3.08	0.9	1.3 U	0.5 U	1.5 U	7.5	490	4	71.2
OW-2	04/26/05	102910-0163	3.31	0.5 J	0.8 U	0.7 U	1.5 U	3 U	422	17.5	137
OW-2	04/26/05	102910-0164 (Dup)	3.29	0.6	0.5 U	0.7 U	1.5 U	NA	NA	NA	NA
OW-2	08/25/05	102910-0202	2.59	0.6 U	0.5 U	0.5 U	1 J	3 U	494	4.6	119
OW-2	11/01/05	102910-0220	3.61	0.2 J	0.5 U	0.5 U	1.5 U	220	480	2.3	101
OW-3	02/28/05	102910-0124	2.04	0.3 J	1.8 U	0.5 U	1.5 U	3 U	478	2.1	93
OW-3	04/26/05	102910-0162	1.1	0.3 J	0.5 U	0.9 U	1.5 U	3 U	346	37	115
OW-3	08/25/05	102910-0203	0.53	0.3 UJ	0.5 U	0.5 U	1 J	3 U	294	73.6	88.9
OW-3	11/01/05	102910-0221	0.55	0.5 U	0.5 U	0.5 U	1.5 U	3 U	272	63.5	78.4
RW-1	03/01/05	102910-0128	2.51	0.5 U	0.5 U	0.5 U	1.5 U	3 U	210	0.9	142
RW-1	04/26/05	102910-0166	0.64	0.2 J	0.5 U	0.7 U	1.5 U	3 U	233	1	44.8
RW-1	08/25/05	102910-0200	0.79	0.3 UJ	1.8 U	0.5 J	3.6	3 U	293	0.61	28.8
RW-1	10/31/05	102910-0215	0.8	0.5 U	0.5 U	0.5 U	1.5 U	3 U	273	0.18 J	24.2

Table 2
Summary of Groundwater Analytical Results - UST Site 2459 - February Through November 2005

Method			8015B - TPH	EPA 8021B	EPA 8021B	EPA 8021B	EPA 8021B	RSK175	EPA 310.1	EPA 353.3	EPA 300.0
Analyte			Diesel	Benzene	Ethylbenzene	Toluene	Xylenes (total)	Methane	Alkalinity (as $CaCO_3$)	Nitrate/Nitrite as N	Sulfate
Unit			(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)
Location Code	Date Sampled	Sample Number									
Equipment Rinsate	02/28/05	102910-0126	0.008 J	0.5 U	0.5 U	0.5 U	1.5 U	NA	NA	NA	NA
Equipment Rinsate	03/01/05	102910-0132	0.096 U	0.2 J	1.9 U	0.5 U	3.6 U	NA	NA	NA	NA
Equipment Rinsate	04/26/05	102910-0170	0.1 U	0.5 U	0.5 U	0.6 U	1.5 U	NA	NA	NA	NA
Equipment Rinsate	08/25/05	102910-0209	0.096 U	0.3 J	2	0.5 U	1.5 U	NA	NA	NA	NA
Equipment Rinsate	10/31/05	102910-0217	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA	NA	NA	NA
Equipment Rinsate	11/01/05	102910-0225	0.096 U	0.5 U	0.5 U	0.5 U	1.5 U	NA	NA	NA	NA
Trip Blank	02/28/05	102910-0120	NA	0.5 U	1.9 U	0.5 U	1.5 U	NA	NA	NA	NA
Trip Blank	03/01/05	102910-0127	NA	0.5 UJ	0.5 UJ	0.5 UJ	1.5 UJ	NA	NA	NA	NA
Trip Blank	04/26/05	102910-0160	NA	0.5 U	0.7 U	0.8 U	1.5 U	NA	NA	NA	NA
Trip Blank	08/25/05	102910-0199	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA	NA	NA	NA
Trip Blank	10/31/05	102910-0218	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA	NA	NA	NA
Trip Blank	11/01/05	102910-0226	NA	0.5 U	0.5 U	0.5 U	1.5 U	NA	NA	NA	NA

Dup - duplicate
EPA - U.S. Environmental Protection Agency
J - estimated
mg/L - milligrams per liter
NA - not analyzed
UST - underground storage tank
µg/L - micrograms per liter
U - not detected above, or equal to, the stated reporting limit

Table 3
Summary of Field Monitoring Results - UST Site 2459 - February Through November 2005

Well	Date	Dissolved Oxygen (mg/L)	Electrical Conductivity (mS/cm)	Ferrous Iron (mg/L)	Oxidation-Reduction Potential (mV)	Water Temperature (°C)
MW-1	3/1/2005	3.43	1.55	ND	+39	21.12
	4/26/2005	0.70	2.14	ND	-95	23.19
	8/24/2005	5.04	2.14	ND	-6	25.23
	11/1/2005	5.21	2.43	ND	+44	23.25
MW-2	2/28/2005	2.99	1.89	ND	+39	23.33
	4/26/2005	0.76	2.27	ND	-212	20.03
	8/25/2005	0.46	1.91	ND	-50	26.45
	11/1/2005	0.66	2.24	ND	+6	27.02
MW-4	3/1/2005	2.36	2.09	ND	+79	21.15
	4/26/2005	0.40	2.67	ND	-91	23.09
	8/25/2005	0.74	2.47	ND	-114	24.97
	11/1/2005	2.18	2.71	ND	+63	24.53
MW-5	3/1/2005	3.90	1.42	ND	+82	21.87
	4/26/2005	0.46	1.75	ND	-84	22.91
	8/25/2005	2.28	1.45	ND	-22	25.65
	11/1/2005	2.79	1.67	ND	+59	24.65
RW-1	3/1/2005	2.79	12.29	ND	-94	25.55
	4/26/2005	0.52	1.30	ND	-147	28.15
	8/25/2005	8.93	1.11	ND	+12	28.68
	10/31/2005	2.92	1.28	ND	+23	30.88
OW-1	2/28/2005	1.48	1.23	ND	-58	26.34
	4/26/2005	0.85	1.80	ND	-110	26.59
	8/25/2005	4.67	1.43	ND	+6	29.52
	10/31/2005	3.21	1.63	ND	+34	28.52
OW-2	2/28/2005	0.77	1.67	ND	-118	24.65
	4/26/2005	1.13	2.31	ND	-163	24.90
	8/25/2005	6.11	1.76	ND	+4	28.34
	10/31/2005	3.21	1.63	ND	+34	28.52
OW-3	2/28/2005	9.30	1.41	ND	+30	24.24
	4/26/2005	2.28	2.01	ND	-137	22.08
	8/25/2005	18.66[1]	1.80	ND	+29	30.70
	11/1/2005	11.31	1.99	ND	+88	29.40

1 - The dissolved oxygen reading for OW-3 is most likely anomalous for the August sampling event. Small air bubbles were forming on the membrane during analysis.

mg/L - milligrams per liter

mS/cm - millisiemens per centimeter

mV - millivolts

ND - not detected

UST - underground storage tank

° C - degrees Celsius

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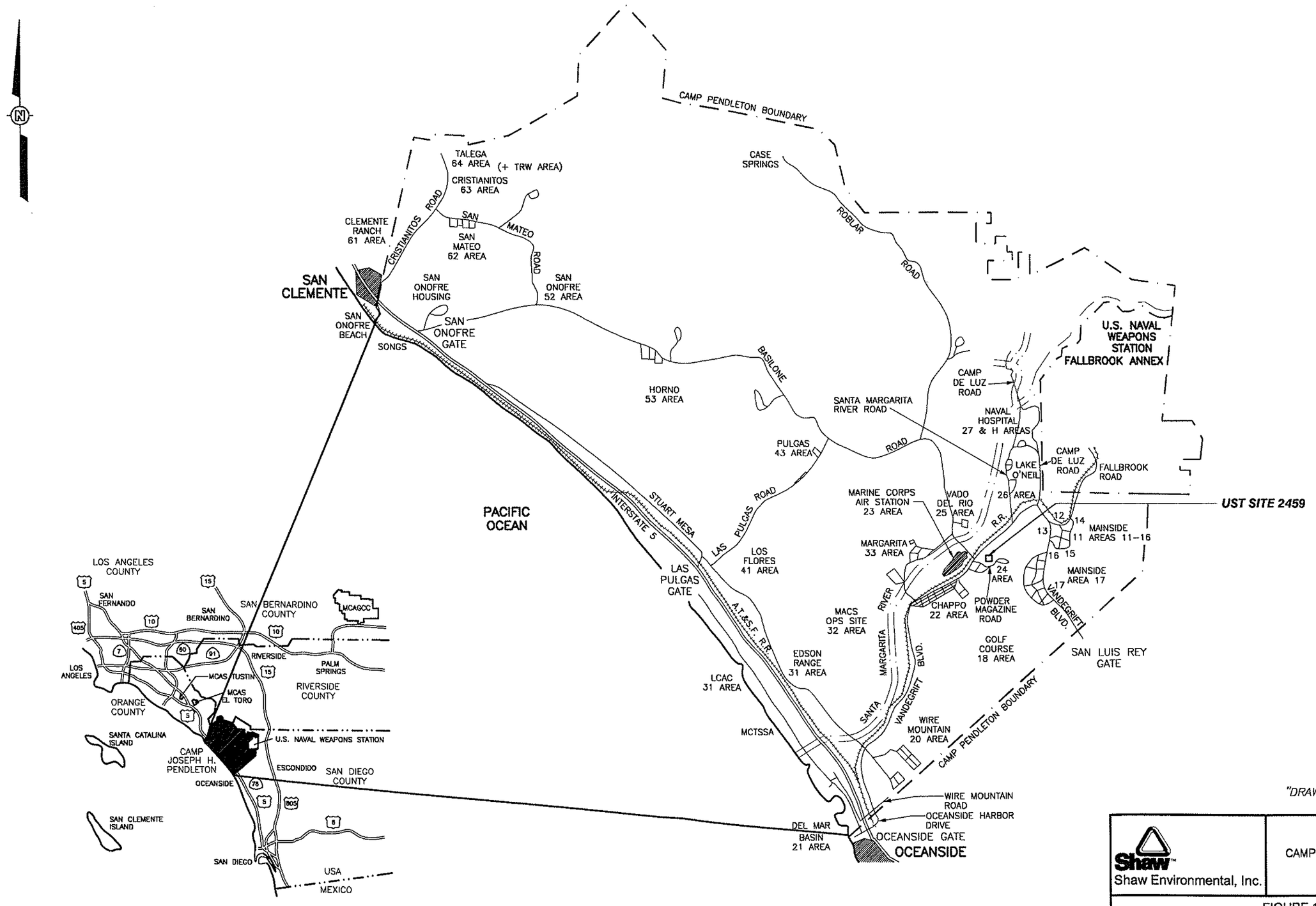

NOTE: MODIFIED FROM BROWN AND CALDWELL, SITE ASSESSMENT REPORT FOR UNDERGROUND STORAGE TANK SITE 21478, MARINE CORPS BASE, CAMP PENDLETON, CALIFORNIA, MARCH 1996, DWG. NO. 1801001.

"DRAWING NOT TO SCALE"

Shaw Environmental, Inc.

CAMP PENDLETON, CALIFORNIA

FIGURE 1

SITE VICINITY AND LOCATION MAP
UST SITE 2459

MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA

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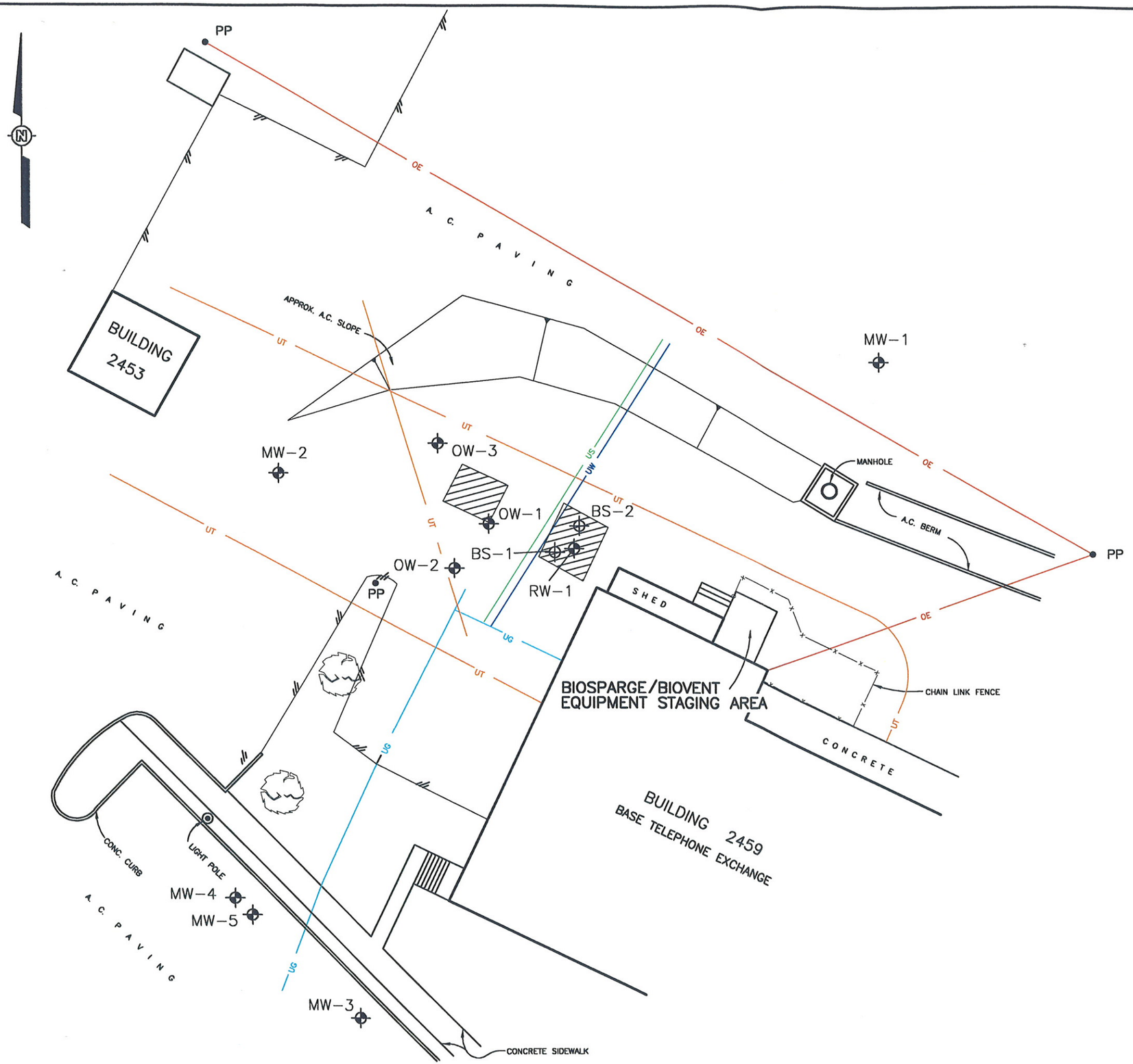

EXPLANATION

- BS-1 — BIOSPARGE TEST WELL
- EXISTING GROUNDWATER MONITORING WELL
- APPROXIMATE LIMIT OF PREVIOUS TANK EXCAVATION
- —x—x— CHAIN LINK FENCE
- TREE
- PP — POWER POLE
- –UT– UNDERGROUND TELEPHONE
- –UG– UNDERGROUND GAS
- –OE– OVERHEAD ELECTRIC
- –US– UNDERGROUND SEWER
- –UW– UNDERGROUND WATER

REFERENCE:
BROWN & CALDWELL SITE ASSESSMENT REPORT,
UST SITE 2459, FEBRUARY 1996.

BENCHMARK:

CAMP PENDLETON N.A.D. 83 CONTROL PT. NO. 50
AN ALUMINUM CAP STAMPED "CONTROL PT. 50" SET IN GRASSY AREA, 15 FEET± SOUTHEAST OF THE SOUTHERLY EDGE OF PAVEMENT OF POWDER MAGAZINE RD., 85 FEET± SOUTHWEST OF GATE TO BUILDING 24105, SET FLUSH WITH GROUND.

N.A.V.D. 1988 ELEVATION = 185.83

SCALE
0 20 40 FEET

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CAMP PENDLETON, CALIFORNIA

FIGURE 2

SITE MAP
UST SITE 2459

MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA

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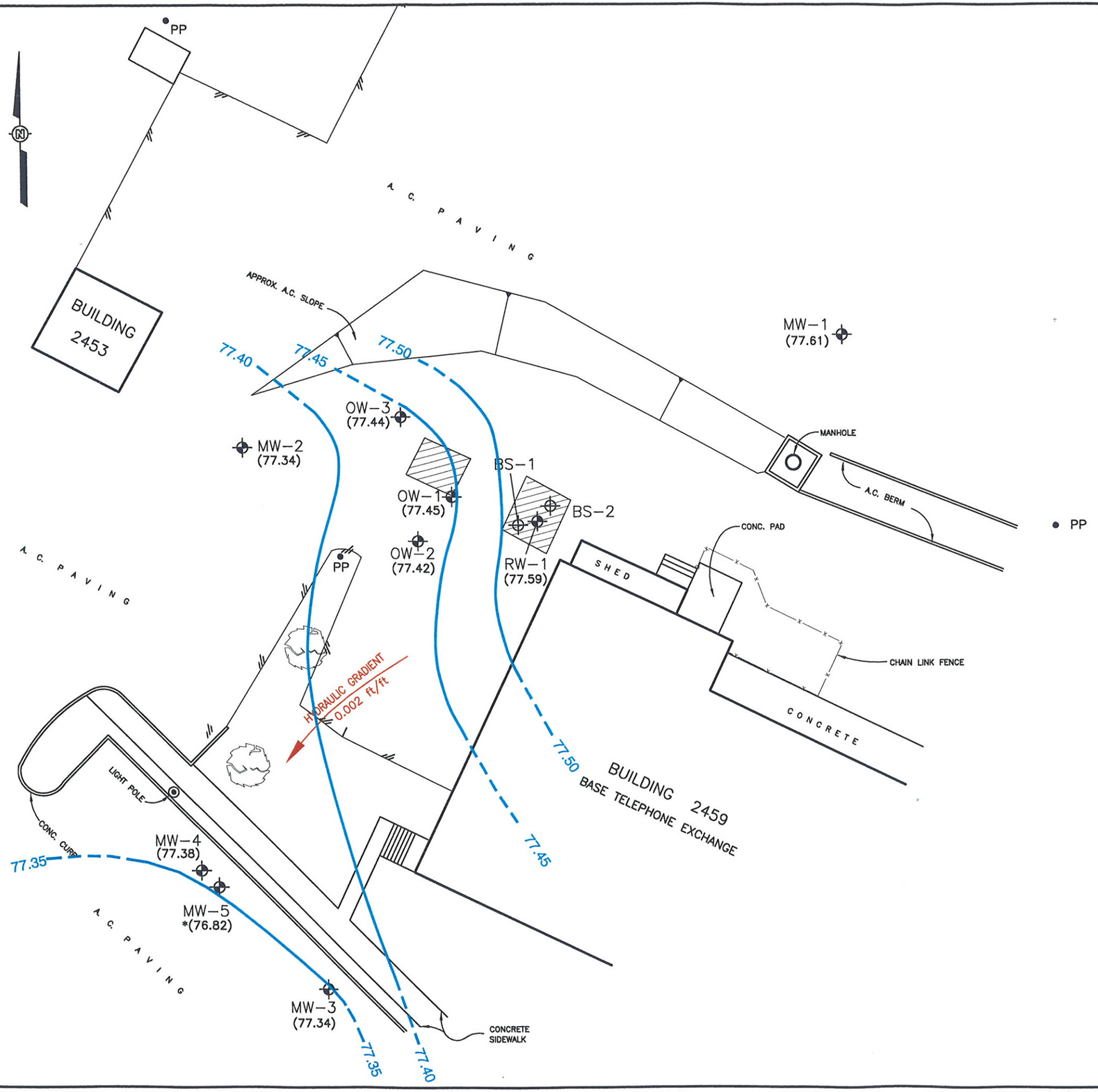

EXPLANATION

- BS-1 — BIOSPARGE TEST WELL
- EXISTING GROUNDWATER MONITORING WELL
- APPROXIMATE LIMIT OF PREVIOUS TANK EXCAVATION
- CHAIN LINK FENCE
- TREE
- PP — POWER POLE
- 73.60 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE UNCERTAIN)
- HYDRAULIC GRADIENT 0.002 ft/ft — APPROXIMATE GROUNDWATER FLOW DIRECTION AND MAGNITUDE OF HYDRAULIC GRADIENT (FEET PER FOOT)
- (74.66) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- * — ELEVATION DATA ANOMALOUS, NOT USED IN CONTOURING

REFERENCE:
BROWN & CALDWELL SITE ASSESSMENT REPORT, UST SITE 2459, FEBRUARY 1996.

NOTE:
MW-1 WAS NOT INCLUDED IN THE GROUNDWATER CONTOURS

BENCHMARK:

CAMP PENDLETON N.A.D. 83 CONTROL PT. NO. 50
AN ALUMINUM CAP STAMPED "CONTROL PT. 50" SET IN GRASSY AREA, 15 FEET± SOUTHEAST OF THE SOUTHERLY EDGE OF PAVEMENT OF POWDER MAGAZINE RD., 85 FEET± SOUTHWEST OF GATE TO BUILDING 24105, SET FLUSH WITH GROUND.

N.A.V.D. 1988 ELEVATION = 185.83

SCALE
0 20 40 FEET

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EFA WEST
CAMP PENDLETON, CALIFORNIA

FIGURE 3

GROUNDWATER ELEVATION CONTOURS
FEBRUARY 2005
UST SITE 2459

MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA

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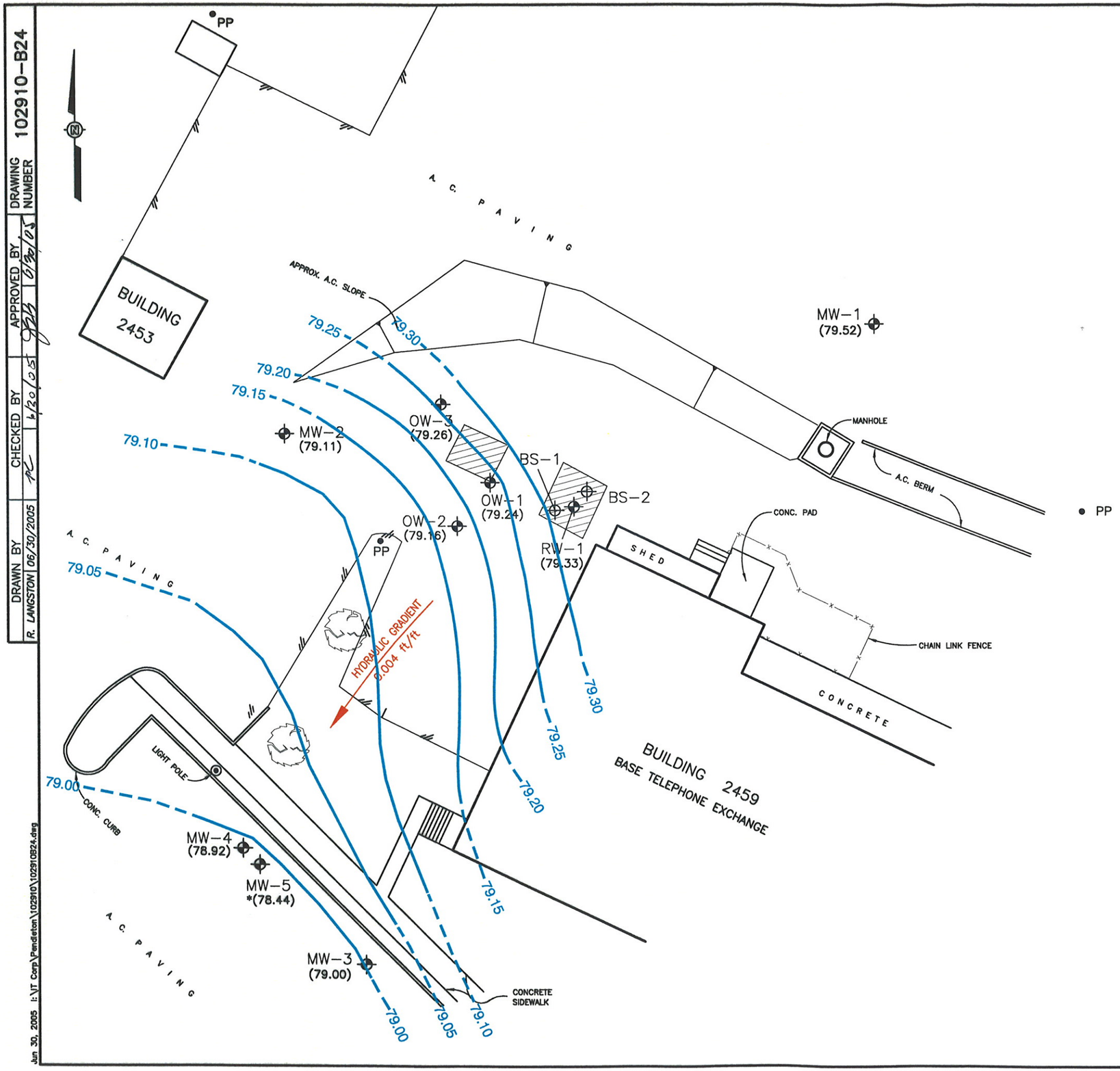

EXPLANATION

- BS-1 — BIOSPARGE TEST WELL
- EXISTING GROUNDWATER MONITORING WELL
- APPROXIMATE LIMIT OF PREVIOUS TANK EXCAVATION
- CHAIN LINK FENCE
- TREE
- PP — POWER POLE
- 74.15 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE UNCERTAIN)
- HYDRAULIC GRADIENT 0.004 ft/ft — APPROXIMATE GROUNDWATER FLOW DIRECTION AND MAGNITUDE OF HYDRAULIC GRADIENT (FEET PER FOOT)
- (74.27) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- * — ELEVATION DATA ANOMALOUS, NOT USED IN CONTOURING

REFERENCE:
BROWN & CALDWELL SITE ASSESSMENT REPORT, UST SITE 2459, FEBRUARY 1996.

NOTE:
MW-1 WAS NOT INCLUDED IN THE GROUNDWATER CONTOURS

BENCHMARK:

CAMP PENDLETON N.A.D. 83 CONTROL PT. NO. 50
AN ALUMINUM CAP STAMPED "CONTROL PT. 50" SET IN GRASSY AREA, 15 FEET± SOUTHEAST OF THE SOUTHERLY EDGE OF PAVEMENT OF POWDER MAGAZINE RD., 85 FEET± SOUTHWEST OF GATE TO BUILDING 24105, SET FLUSH WITH GROUND.

N.A.V.D. 1988 ELEVATION = 185.83

SCALE
0 20 40 FEET

Shaw™
Shaw Environmental, Inc.

EFA WEST
CAMP PENDLETON, CALIFORNIA

FIGURE 4
GROUNDWATER ELEVATION CONTOURS
APRIL 2005
UST SITE 2459
MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA

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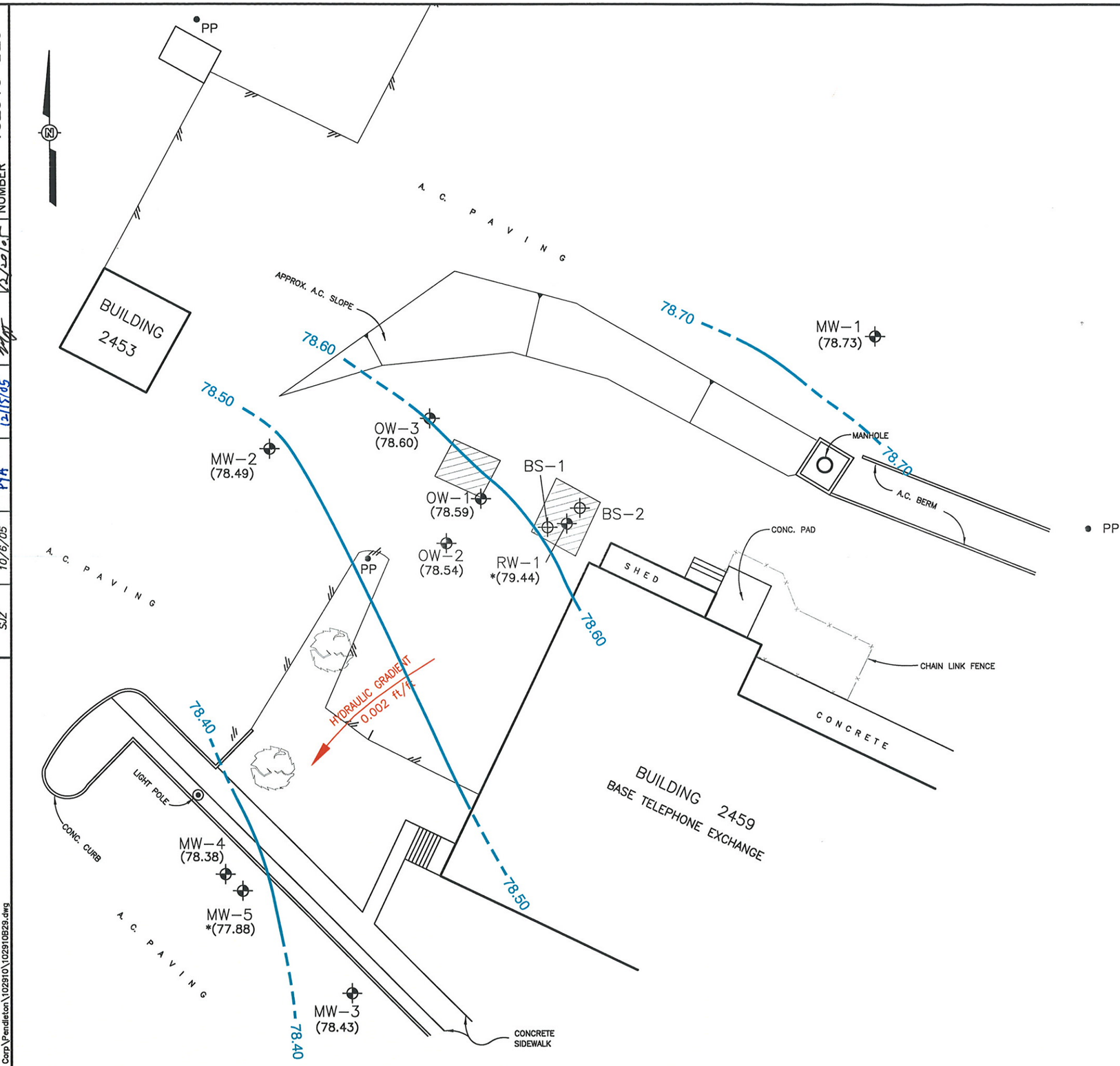

EXPLANATION

- BS-1 — BIOSPARGE TEST WELL
- EXISTING GROUNDWATER MONITORING WELL
- APPROXIMATE LIMIT OF PREVIOUS TANK EXCAVATION
- CHAIN LINK FENCE
- TREE
- PP — POWER POLE
- 73.60 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE UNCERTAIN)
- HYDRAULIC GRADIENT 0.002 ft/ft — APPROXIMATE GROUNDWATER FLOW DIRECTION AND MAGNITUDE OF HYDRAULIC GRADIENT (FEET PER FOOT)
- (74.66) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- * — ELEVATION DATA ANOMALOUS, NOT USED IN CONTOURING

REFERENCE:
BROWN & CALDWELL SITE ASSESSMENT REPORT, UST SITE 2459, FEBRUARY 1996.

NOTE:
MW-1 WAS NOT INCLUDED IN THE GROUNDWATER CONTOURS

BENCHMARK:

CAMP PENDLETON N.A.D. 83 CONTROL PT. NO. 50
AN ALUMINUM CAP STAMPED "CONTROL PT. 50" SET IN GRASSY AREA, 15 FEET± SOUTHEAST OF THE SOUTHERLY EDGE OF PAVEMENT OF POWDER MAGAZINE RD., 85 FEET± SOUTHWEST OF GATE TO BUILDING 24105, SET FLUSH WITH GROUND.

N.A.V.D. 1988 ELEVATION = 185.83

SCALE
0 20 40 FEET

Shaw™
Shaw Environmental, Inc.

EFA WEST
CAMP PENDLETON, CALIFORNIA

FIGURE 5
GROUNDWATER ELEVATION CONTOURS
AUGUST 2005
UST SITE 2459
MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA

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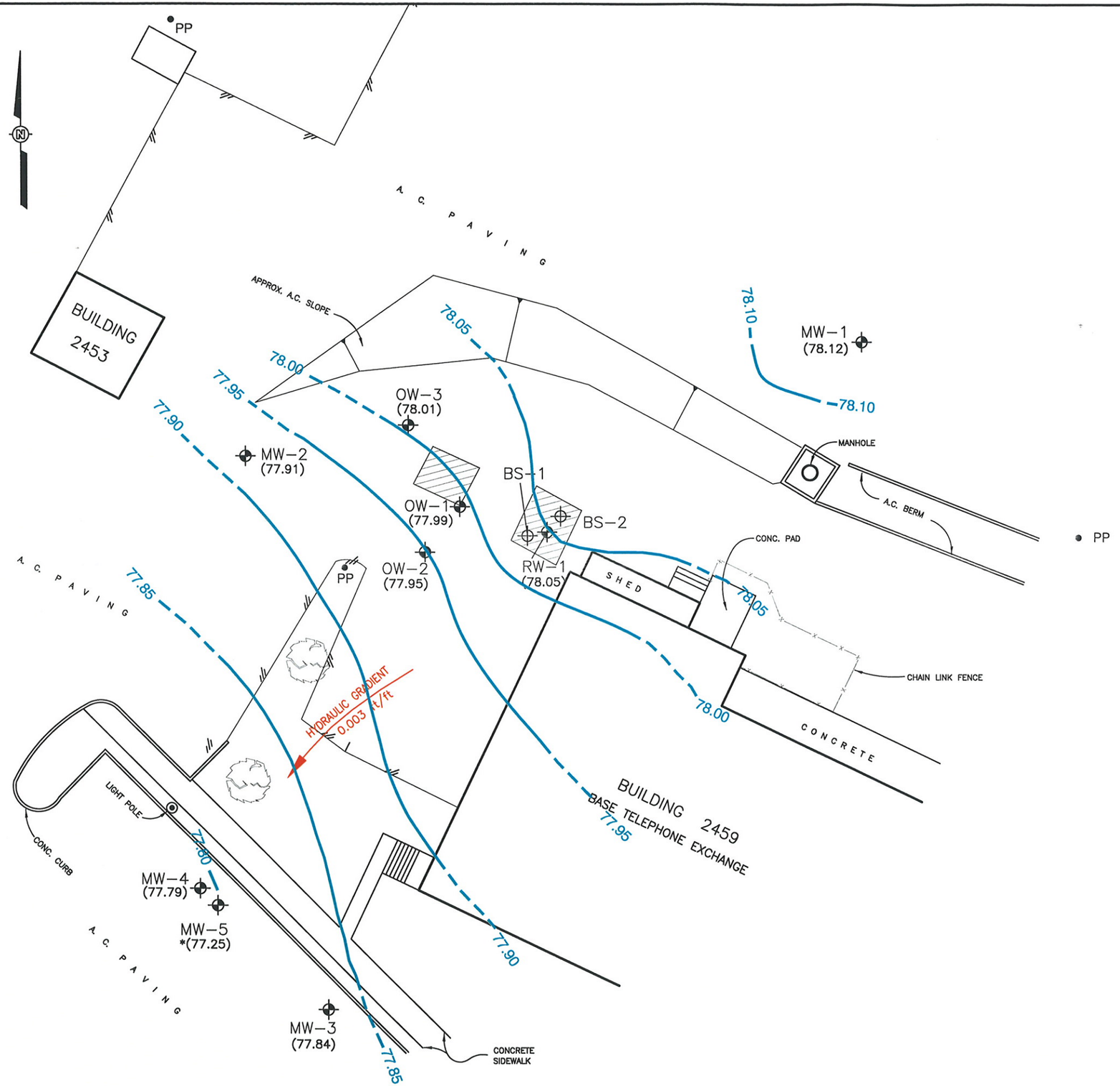

EXPLANATION

- BS-1 — BIOSPARGE TEST WELL
- EXISTING GROUNDWATER MONITORING WELL
- APPROXIMATE LIMIT OF PREVIOUS TANK EXCAVATION
- CHAIN LINK FENCE
- TREE
- PP — POWER POLE
- 73.10 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE UNCERTAIN)
- HYDRAULIC GRADIENT 0.003 ft/ft — APPROXIMATE GROUNDWATER FLOW DIRECTION AND MAGNITUDE OF HYDRAULIC GRADIENT (FEET PER FOOT)
- (78.05) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- * — ELEVATION DATA ANOMALOUS, NOT USED IN CONTOURING

REFERENCE:
BROWN & CALDWELL SITE ASSESSMENT REPORT, UST SITE 2459, FEBRUARY 1996.

NOTE:
MW-1 WAS NOT INCLUDED IN THE GROUNDWATER CONTOURS

BENCHMARK:

CAMP PENDLETON N.A.D. 83 CONTROL PT. NO. 50
AN ALUMINUM CAP STAMPED "CONTROL PT. 50" SET IN GRASSY AREA, 15 FEET± SOUTHEAST OF THE SOUTHERLY EDGE OF PAVEMENT OF POWDER MAGAZINE RD., 85 FEET± SOUTHWEST OF GATE TO BUILDING 24105, SET FLUSH WITH GROUND.

N.A.V.D. 1988 ELEVATION = 185.83

SCALE
0 20 40 FEET

Shaw Environmental, Inc.

EFA WEST
CAMP PENDLETON, CALIFORNIA

FIGURE 6
GROUNDWATER ELEVATION CONTOURS
OCTOBER 2005
UST SITE 2459
MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA

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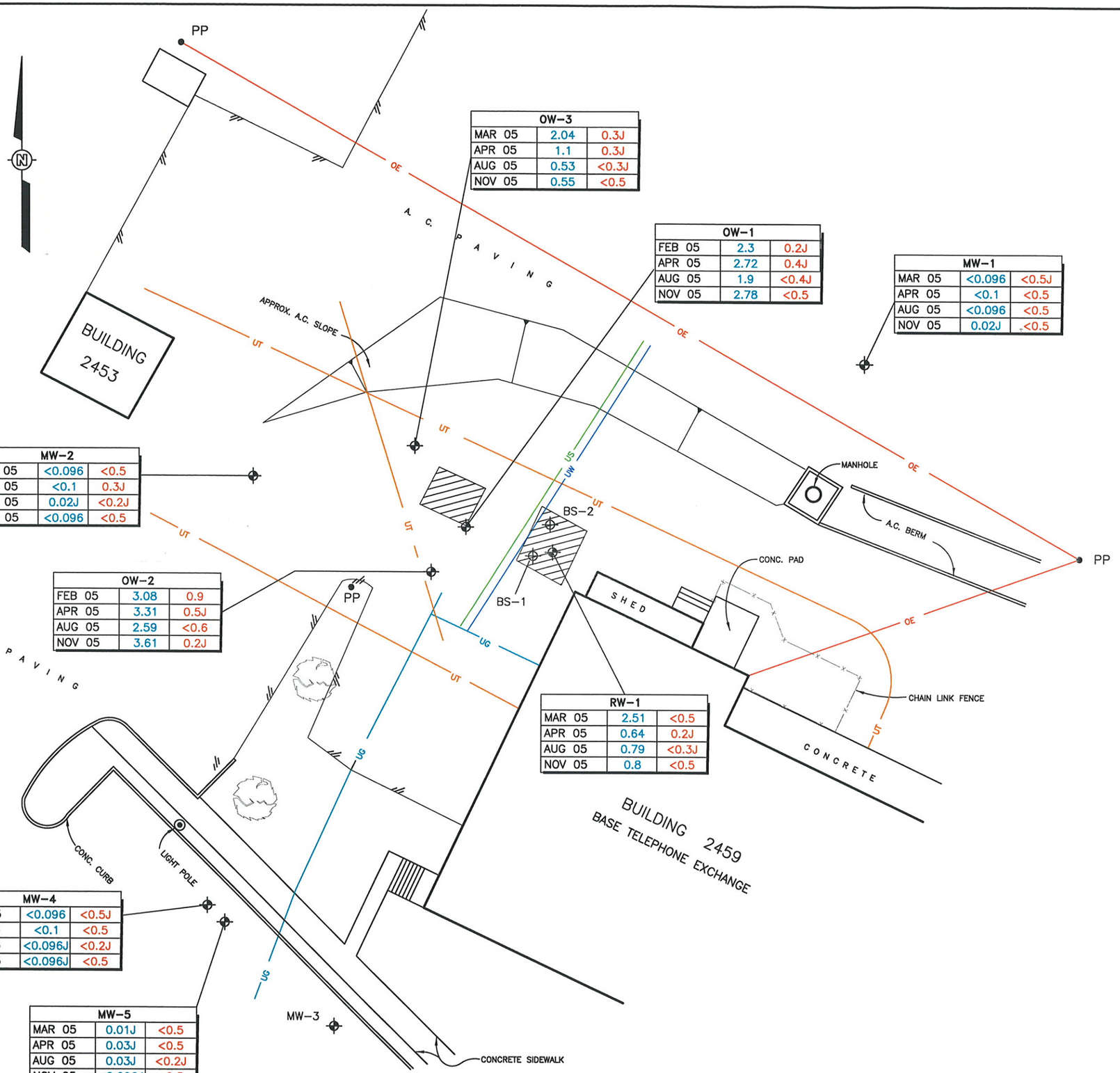
Figure 7 - Hydrograph of Groundwater Elevations
UST Site 2459

DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
SJZ 12/15/05	PK 12/15/05	12/20/05	102910-B35



OW-3		
MAR 05	2.04	0.3J
APR 05	1.1	0.3J
AUG 05	0.53	<0.3J
NOV 05	0.55	<0.5

OW-1		
FEB 05	2.3	0.2J
APR 05	2.72	0.4J
AUG 05	1.9	<0.4J
NOV 05	2.78	<0.5

MW-1		
MAR 05	<0.096	<0.5J
APR 05	<0.1	<0.5
AUG 05	<0.096	<0.5
NOV 05	0.02J	<0.5

MW-2		
FEB 05	<0.096	<0.5
APR 05	<0.1	0.3J
AUG 05	0.02J	<0.2J
NOV 05	<0.096	<0.5

OW-2		
FEB 05	3.08	0.9
APR 05	3.31	0.5J
AUG 05	2.59	<0.6
NOV 05	3.61	0.2J

RW-1		
MAR 05	2.51	<0.5
APR 05	0.64	0.2J
AUG 05	0.79	<0.3J
NOV 05	0.8	<0.5

MW-4		
MAR 05	<0.096	<0.5J
APR 05	<0.1	<0.5
AUG 05	<0.096J	<0.2J
NOV 05	<0.096J	<0.5

MW-5		
MAR 05	0.01J	<0.5
APR 05	0.03J	<0.5
AUG 05	0.03J	<0.2J
NOV 05	<0.096J	<0.5

EXPLANATION

- BS-1 — BIOSPARGE TEST WELL
- EXISTING GROUNDWATER MONITORING WELL
- APPROXIMATE LIMIT OF PREVIOUS TANK EXCAVATION
- CHAIN LINK FENCE
- TREE
- PP — POWER POLE
- –UT– UNDERGROUND TELEPHONE
- –UG– UNDERGROUND GAS
- –OE– OVERHEAD ELECTRIC
- –US– UNDERGROUND SEWER
- –UW– UNDERGROUND WATER
- <0.096 — TPH–DIESEL CONCENTRATION (mg/L)
- <0.5 — BENZENE CONCENTRATION (µg/L)
- J — ESTIMATED VALUE
- NR — NO RESULT

REFERENCE:
BROWN & CALDWELL SITE ASSESSMENT REPORT, UST SITE 2459, FEBRUARY 1996.

BENCHMARK:

CAMP PENDLETON N.A.D. 83 CONTROL PT. NO. 50
AN ALUMINUM CAP STAMPED "CONTROL PT. 50" SET IN GRASSY AREA, 15 FEET± SOUTHEAST OF THE SOUTHERLY EDGE OF PAVEMENT OF POWDER MAGAZINE RD., 85 FEET± SOUTHWEST OF GATE TO BUILDING 24105, SET FLUSH WITH GROUND.

N.A.V.D. 1988 ELEVATION = 185.83

SCALE
0 20 40 FEET

Shaw Environmental, Inc.

EFA WEST
CAMP PENDLETON, CALIFORNIA

FIGURE 8
CONTAMINANT CONCENTRATIONS FEBRUARY THROUGH NOVEMBER 2005 UST SITE 2459

MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA

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DRAWN BY	SJZ	12/7/05
CHECKED BY	PK	12/15/05
APPROVED BY		12/20/05
DRAWING NUMBER	102919-B32	

OW-3			
MARCH 05	9.30	+30	ND
APR 05	2.28	−137	ND
AUG 05	NA	+29	ND
NOV 05	11.31	+88	ND

OW-1			
FEB 05	1.48	−58	ND
APR 05	0.85	−110	ND
AUG 05	4.67	+6	ND
NOV 05	3.21	+34	ND

MW-1			
MARCH 05	3.43	+39	ND
APR 05	0.70	−95	ND
AUG 05	5.04	−6	ND
NOV 05	5.21	+44	ND

MW-2			
FEB 05	2.99	+39	ND
APR 05	0.76	−212	ND
AUG 05	0.46	−50	ND
NOV 05	0.66	+6	ND

OW-2			
FEB 05	0.77	−118	ND
APR 05	1.13	−163	ND
AUG 05	6.11	+4	ND
NOV 05	3.21	+34	ND

RW-1			
MARCH 05	2.79	−94	ND
APR 05	0.52	−147	ND
AUG 05	8.93	+12	ND
NOV 05	2.92	+23	ND

MW-4			
MARCH 05	2.36	+79	ND
APR 05	0.40	−91	ND
AUG 05	0.74	−114	ND
NOV 05	2.18	+63	ND

MW-5			
MARCH 05	3.90	+82	ND
APR 05	0.46	−84	ND
AUG 05	2.28	−22	ND
NOV 05	2.79	+59	ND

PP
OE
A.C. PAVING
BUILDING 2453
APPROX. A.C. SLOPE
UT
2000
B-1
BS-2
SB-1
2001
BS-1
US
UW
UG
MANHOLE
A.C. BERM
CONC. PAD
SHED
CHAIN LINK FENCE
CONCRETE
B-2
CONC. CURB
LIGHT POLE
MW-3
CONCRETE SIDEWALK
BUILDING 2459
BASE TELEPHONE EXCHANGE

EXPLANATION

- BS-1 — BIOSPARGE TEST WELL
- EXISTING GROUNDWATER MONITORING WELL
- SLANT BORING
- VERTICAL SOIL BORING
- APPROXIMATE LIMIT OF PREVIOUS TANK EXCAVATION
- CHAIN LINK FENCE
- TREE
- PP — POWER POLE
- –UT– UNDERGROUND TELEPHONE
- –UG– UNDERGROUND GAS
- –OE– OVERHEAD ELECTRIC
- –US– UNDERGROUND SEWER
- –UW– UNDERGROUND WATER
- 2.92 DISSOLVED OXYGEN CONCENTRATION (mg/L)
- +232 OXIDATION REDUCTION POTENTIAL (mV)
- 1.5 FERROUS IRON CONCENTRATION (mg/L)
- ND NOT DETECTED
- NA NO RESULT

REFERENCE:
BROWN & CALDWELL SITE ASSESSMENT REPORT, UST SITE 2459, FEBRUARY 1996.

BENCHMARK:

CAMP PENDLETON N.A.D. 83 CONTROL PT. NO. 50
AN ALUMINUM CAP STAMPED "CONTROL PT. 50" SET IN GRASSY AREA, 15 FEET± SOUTHEAST OF THE SOUTHERLY EDGE OF PAVEMENT OF POWDER MAGAZINE RD., 85 FEET± SOUTHWEST OF GATE TO BUILDING 24105, SET FLUSH WITH GROUND.

N.A.V.D. 1988 ELEVATION = 185.83

SCALE
0 20 40 FEET

Shaw Environmental, Inc.

EFA WEST
CAMP PENDLETON, CALIFORNIA

FIGURE 9

SUMMARY OF FIELD MONITORING RESULTS
FEBRUARY THROUGH NOVEMBER 2005
UST SITE 2459
MARINE CORPS BASE
CAMP PENDLETON, CALIFORNIA

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Figure 10
Total TPH Remaining in Vadose Zone
UST Site 2459